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Environmental Impact Statement Conference Held at Atlanta, Georgia on June 17, 1980

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Atlanta, GA

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The environmental impact statement meetings contained the following: Welcome speech; NEPA and the decision-making process; Progress in agenxies' implementation of CEQ NEPA regulations; Energy and the environment; Community conservation guidelines -- a federal initiative towards conserving urban communities; Environmental impact statement preparation and review; Urban impact analysis; Scoping; The consultant's viewpoint; Closing remarks; List of attendees; List of Washington offices for NEPA activities.

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ENVIRONMENTAL IMPACT STATEMENT CONFERENCE

Tuesday, June 17, 1980, Room 104

Atlanta Civic Center
395 Piedmont Avenue
Atlanta, Georgia 30365

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REMARKS BY JOHN E. HAGAN III, EPA, CHIEF, EIS BRANCH, TO THE ENVIRONMENTAL IMPACT STATEMENT CONFERENCE, ATLANTA, GEORGIA, JUNE 17, 1980

Good morning. Welcome to Atlanta and the annual Environmental Impact Statement Conference. We are pleased, on the tenth anniversary of NEPA, that our keynote speaker has chosen as her topic, "NEPA and The Decision-Making Process." We are especially pleased that Rebecca W. Hanmer, Regional Administrator, Region IV, USEPA, agreed to deliver the keynote address. Ms. Hanmer directs a staff of 600 interdisciplinary employees in implementing and enforcing Federal environmental protection laws in the eight southeastern states. Prior to joining us in January 1980, she was Deputy Regional Administrator, Region I, where she shared administrative and policy direction of an interdisciplinary staff of 350 with the Regional Administrator for the six-state northeast region.

Many of you will recall that Ms. Hanmer was Director, Office of Federal Activities, U. S. Environmental Protection Agency, from April 1976 to October 1977. During that time she directed a staff of 50 at EPA Headquarters. She managed EPA's program for reviewing Federal agency projects and Environmental Impact Statements under the National Environmental Policy Act and E.O. 11752, concerning pollution control on Federal lands and facilities. She developed policy and guidelines for EPA preparation of Environmental Impact Statements on wastewater treatment facilities and other actions.

Ms. Hanmer also served as the Assistant Director, Office of Federal Activities. She supervised two successive staffs, developed and implemented NEPA regulations and Executive Orders on Federal facility pollution control, and set up the EPA system for reviewing Federal agency regulations. She negotiated environmental requirements for major Federal projects such as OCS lease sales in Alaska and the Gulf of Mexico, water resource projects, national forest management proposals, and nuclear power plant licenses. In fact, she wrote the Federal Water Quality Administration's first NEPA regulations. Rebecca received the EPA Silver Medal for Superior Service 1975 and the EPA Gold Medal for Exceptional Service 1977. It is my honor to present Ms. Rebecca W. Hanmer.

REMARKS BY REBECCA W. HANMER, REGIONAL ADMINISTRATOR
TO THE ENVIRONMENTAL IMPACT STATEMENT CONFERENCE
JUNE 17-18, 1980

FUTURE OF NEPA --

I am sold on the NEPA process, not just because I support environmental goals, but because its basic process -- analyzing alternatives, consulting with affected publics, getting the facts about major projects out -- is a good decision making process. EPA will continue to resolve project specific environmental, social and political controversies through the use of EIS's. In addition, the EIS process will be used to develop regional policies and procedures related to a number of major regional issues.

Let me point something else out: Those who are counting on application of individual environmental standards to protect our country for future generations are sadly misinformed. Our standards do not get at the heart of the environmental issues we find most difficult: siting, natural resource preservation and utilization, community disruption, for example. But NEPA analysis does.

Now, perhaps we have a chance to put our money where our mouth is. One of the anomalies of EPA's NEPA process is NPDES. Doing analysis of major facilities with NEPA and without, the NPDES process is one of the most complex processes in government. It requires people to think and not just follow procedures, etc.; allows for public participation, and encompasses a multi-faceted analysis and outlining of choices.

There is evidence that some agencies have not considered NEPA important in decision-making. This is perhaps due to de facto rather than de jure reasons. Protracted design periods, coupled with incremental (interim) decisions, limit the impact of NEPA. This is especially true on the fundamental issue of whether the No-action Alternative actually receives a realistic appraisal (or any appraisal).

For example: By the time the COE or DOT have spent years and thousands of dollars on design and feasibility studies the decision as to whether there will be a project is a foregone conclusion. There is the distinct impression that no matter where this type of procedure is pulsed, it's either too early or too late. COE has formalized this procedure by considering an EIS as just one element in its decision making process (rather than incorporating everything else into the EIS).

The exchange of correspondence between EPA and the Charleston COE regarding Folly Beach is a vivid example. While impact assessment is indicated as Task 3 in all three stages, the exact point of EIS introduction is not immediately clear. More importantly, the Charleston Corps apparently does not see that societal, economic, political, etc., elements can be factored into the EIS. If this were done, the EIS would serve as the prime document rather than be relegated.

IS NEPA A DISCLOSURE OR DECISION-MAKING DOCUMENT? --

Region IV fully concurs with CEQ Regulation Section 1502.1..."An environmental impact statement is more than a disclosure document. It shall be used by Federal officials in conjunction with other relevant materials to plan actions and make decisions."

EPA Region IV contends that because environmental, societal, economic, political, etc., factors are considered in an EIS, it should function as an "umbrella" under which these other relevant material(s) are to be incorporated into decision-making. This does not mean all these data would have to be immediately integrated into the body of the EIS. They could be appended or incorporated by reference.

Whether NEPA is an information or decision-making process/document is specifically addressed by the CEQ Regulation 1502.1. (Purpose). Other Sections which pointedly mention or allude to decision-making are: 1500.1(c), (purpose); 1500.2(b), (policy); 1500.2(3-f), (policy); 1501.2, 1502.2(d), and (e).

Of course, on a generic basis nearly all Sections deal with some aspects of decision-making. EPA's affirmation of NEPA as a decision-making document is expressed in Environmental Protection Agency Implementation of Procedures on the National Environmental Policy Act. (44CFR216). Certain aspects of these regulations outline EPA's responsibilities relative to conducting environmental reviews on proposed EPA projects at the earliest possible point in EPA's decision-making process; the preparation and distribution of Draft EIS's at the earliest possible point in the decision-making process; coordinating internal and external reviews, and preparing and distributing Final EIS's.

The procedures provide for early involvement of private parties by making available upon request environmental information required from applicants as a basis for evaluating their proposed actions. The EIS procedures, from the environmental reviews of environmental information documents, through the Notice of Intent and EIS's or the Finding of No Significant Impact, to the Record of Decision, reiterates EPA's affirmation of NEPA as a decision-making document.

HOW THE NEPA PROCESS HAS BEEN USED IN REGION IV DECISION-MAKING --

Region IV has prepared 29 EIS's and has another 24 in preparation. In order to be used in decision-making, the NEPA process must be initiated prior to commitments being made. How simple this seems and how often overlooked. Section 6.102 of the EPA implementation procedures emphasize the need for early NEPA involvement. In this regard, Region IV EPA has pioneered the Third-Party EIS process which incorporates NEPA into early applicant decision-making. This process allows for problems to be resolved between EPA and the applicant prior to either having to make irrevocable decisions.

EARLY INVOLVEMENT, I.E., SCOPING --

Early involvement of outside parties through scoping is incorporated into Region IV EIS projects. Section 6.104 of EPA's Implementation procedures cites this requirement. Region IV has not only complied in spirit but in fact. Region IV has been utilizing the scoping process for more than four years.

Region IV scopes the NEPA review process to coordinate all Federal decision-making. NPDES permitting, PSD approval, COE Section 10, Section 404 permitting, and State permitting have all been coordinated through EPA EIS's. Public hearings on EIS's are utilized to meet the requirements of each of these other permitting processes wherever possible. This coordination has been particularly effective in permitting power plants.

GRANT MODIFICATIONS --

Region IV has caused major modifications to be incorporated into projects for which EIS's have been prepared. Most often these changes have occurred by the applicant making changes to the project due to analysis and recommendations made by EPA through an EIS. The major benefit of the NEPA process is found here.

In many cases permit or grant conditions are utilized to document agreements made regarding actions yet to be taken. Conditions on air, water, groundwater, and vegetation monitoring have been used. Conditions regarding the allowable uses of EPA supported wastewater facilities have also been improved.

EXAMPLES OF THE BENEFITS OF THE NEPA PROCESS --

1. Conditions are being attached to the New Source NPDES permit for Stearns Mining Co. Coal Preparation Plant in Stearns, KY. The conditions state that the company will perform groundwater monitoring in the vicinity of the plant and implement a remedial action plan should significant groundwater contamination be caused by plant operation. A potential groundwater problem was identified by EPA through a review of geologic information provided by the applicant, and concerns voiced by local inhabitants whose wells could be affected by plant induced contamination of local aquifers.

2. The Cahaba River EIS resulted in a redirection of the Basin's development focus from a sensitive and undeveloped watershed to areas proximal to existing developed and less sensitive areas. As a result of this redirection, the EIS recommended an action different from that expressed in the 201 proposal, i.e., in treatment plant location and location and routing of interceptors.

   Cahaba River EIS grant conditions were stated in the form of requirements; these stipulations were made to minimize adverse impacts which were identified through the EIS process. Additional studies concerning land application, sludge disposal, recreational opportunities, water quality and biological monitoring were also included. Several EIS recommendations related to planning orderly growth and environmental protection, comprehensive planning, floodplain ordinances and water resource planning for the Cahaba Basin were also made. EPA worked with local officials in developing these requirements and recommendations which were included as grant conditions. The County has indicated an overall willingness to comply; therefore, enforcing these conditions is not anticipated to be a problem.

3. The Horsepen Creek (Greensboro, NC) 201 EIS reduced the original 201 proposal of a 42" interceptor to a 24" line. This is designed to replace the present system of seven lift stations in the basin and provide capacity for new airport terminal and committed industrial expansion. Capacity was not included, however, for residential growth in the basin. Water quality analysis conducted as part of the EIS indicated that runoff related to urbanization was having a very significant deleterious effect on water quality in Lake Brandt, the source of drinking water for the City of Greensboro. The chosen alternative is designed to encourage less intensive land use densities which will minimize the concentration of pollutants generated in urban runoff.

   The Louisville Gas and Electric Environmental Impact Statement resulted in major changes in the layout of the proposed power plant, and a unique Ohio River oxbow was saved along with areas containing archeological resources. I asked my staff if we had any examples, yet, of having to use any kind of enforcement mechanism to enforce these conditions; and we have no examples. So far, the compliance has been good; it has been voluntary in accordance with the grant conditions or the permit conditions, and we have not got any experiences yet of having to try to enforce these conditions.

   There are, of course, some major problems remaining. The major problem, one for decision makers, is the time required to perform thorough compliance with NEPA. This problem is greatly exacerbated when NEPA is not initiated early in the development of the project, as you well know, but comes after considerable time and money has been spent. The thing is that the major reasons for the delay are, in fact, most times the major strengths of using the NEPA tool. That is, coordination of a variety of different agencies that have a permit or a grant or some sort of interaction with a particular development, time for public involvement, and accurate documentation of the review process, and time to analyze very complex environmental issues. So we have a dilema here, into which we have to continue to work at this problem of public perception that NEPA is just a gigantic delay tool and the fact that it does take time to make these kinds of decisions the right way. For major developments have been a significant impact on the environment. In other words, with that subset of issues with which we have to deal through the EIS process. So that simple sentence, "It takes time," says something that is often decried. A good decision process is a complex process, a process with public participation, a process that looks deeply at a project, and especially if you want to do anything at all inovating, you pay a penalty, and the penalty is that it takes time. And that is a great dilemma for us when time is money in inflationary times. We are under a great deal of pressure to go ahead and make fast decisions. The problem with those fast decisions, as I said, is that innovation goes out the window. Time to build consensus of the participation also goes out the window and I am not sure that we as NEPA professionals or decision makers have clearly focused this issue. We have been trying very hard, as a matter of fact, to convince people that it doesn't take time; that we can speed it up or that we can pull some sort of miracle in which we do all these things and we do them within 30 or 90 days. And I don't think we have really had the guts to face up to the fact, or perhaps it's just that we in EPA haven't had the guts to face up to the fact, that the decision-making process for certain kinds of projects has to take time and that, in fact, certain kinds of projects should not go at all.

A lot of controversy, as I said, arose over the use of conditions on permits or grants and this concern is very apparent when you haven't been able to sell your conditions to the applicant. Also, when you're using grant conditions there is a big question about what happens to those grant conditions after the last Federal money has been laid out there. In particular, grant conditions that get out the long term use of a project rather than the things that happen to it while there is still some Federal money left to be paid.

For us, and I suspect for some of you all, the use of contractors is another limitation in terms of NEPA in the decision-making process. We have to use contractors most of the time for performing our NEPA analyses. The benefits of these are obviously that we can tap specialized expertise on an "as needed" basis and further, we can keep down the number of permanent Federal employees. But there is a detriment side when you're trying to use NEPA not just as an environmental document here, but as a decision-making process and that is the remoteness of the contractors basically from the decision-maker and the fact that quite often for us the contractor is out there in the field dealing with the community. We aren't there; an agent is there and we haven't been able to close this loop nearly as successfully as I think we have to. Often, for example, months go by between any interaction between the contractor and the decision-maker. Yes, there is interaction between the contractor and the project officer, but too often the decision-maker just sort of sits back and waits for the whole thing to be put together and then discovers at the end that it doesn't quite sound right. Obviously, we are not going to be able to change our use of contractors so the challenge for us is to recognize this as a problem and then take measures to deal with it. For example, including more money in our contracts than we normally would for frequent interaction between the contractor and the decision-makers' frequent briefings.

Coordination with local officials is another problem area for us and I think in any case where what you're dealing with is a local public project, if you assume you are going to use NEPA to make decisions, you assume then that in most cases where you have a proposal that represents a major Federal action with a significant impact on the environment that the NEPA process is in fact going to lead you to look at some changes in that project. Here the EIS preparation process is not only a decision-making process or an analysis process, it is also a diplomatic process and I wonder how many of us who have worked in this area have had, in fact, negotiator and diplomat written into our job descriptions. Because I am rather awed by the difficulty of getting a town to do something that it really doesn't want to do even though the EIS clearly shows that that is the best thing to do. Because basically, at the Federal level they aren't really there every day to see that it gets done. So there has to be a lot of faith in the process between the agency and the applicant because frankly, the carrying out of those conditions is largely going to be an act of faith. None of us, I suspect, has the resources to do detailed followup on our EIS's; certainly EPA does not.

To reiterate my initial premise, I am sold on the NEPA process, not just because I support environmental protection or envirionmental goals, but because I support NEPA as a basic decision-making process. A process of analyzing alternatives, consulting with affected parties, getting the facts out about major projects, getting the facts out about their impacts, that to me is a good basic decision-making process in a democratic society. The NEPA analysis gets at the heart of the environmental issues that are the most difficult to deal with - siting, natural resource preservation or wise management and utilization, community disruption - those things that cause the most heat in the NEPA process. So from an environmental protection point of view, even as an environmental regulator, I find a tremendous utility to the NEPA process.

Now, the last thing I will mention to you is that maybe I have discovered that you cannot always stand up in front of somebody and just through an oratory process like this, convince not you, but those who might not agree with this. So we've decided to try to do some kind of analysis, Bill Hedeman and I, that will try to get at: Is the decision-making process for a new development, such as a power plant, made with or without NEPA, a different process? And I very much hope that the results of that analysis do uphold the validity, the utility, and the importance of the NEPA process in decisions. What we have isn't a novelty in EPA regulations that says when EPA issues a new source water discharge permit we apply NEPA and that means just not the EIS, but that we use NEPA to augment our authority to condition these water discharge permits and to do a broad analysis whether we do an Impact Statement or a Finding of No Significant Deterioration. The State, however, when they issue water discharge permits, same permit, same law, under the legal interpretation, it's a State action, not a Federal action and therefore, NEPA does not apply. So we are going to be looking for cases of where in many cases the Corps of Engineers, through Section 10, or some other agency, gets out of the development even when the State issues the water discharge permit and we cannot under NEPA. But we are going to be looking for cases in several regions, I hope, in which a very similar facility has been located with NEPA analysis/without NEPA analysis so that we can really take an analytical look at our own process and see whether or not it makes a difference and whether or not that analysis suggests to us there are rules that can be made. I don't know whether by our meeting next year we'll have any results yet, but I'm certainly hoping so. Do you have any questions?

Thank you very much.

QUESTIONS FROM THE AUDIENCE:

John Hagan III, EPA -- As you can see, for a person working day to day in the NEPA activity at EPA Region IV, it is a delight to have Rebecca Hanmer as our Regional Administrator, with her support for this program and her very active concern for the way the NEPA process is carried out. I'm sure that all of you who work in the NEPA activity will feel the influence of her concerns over the next several years. There was a hand up back there.

Louis Franklin (Claude Terry & Associates) -- Yes, I did have a question. I wanted you to pick up on Miss Hanmer's point about bridging the gap, the distance between the decision-maker and a consultant. I'm one of your consultants and I wanted to know how we might bridge this gap. Are you talking in terms of periodic briefings between you and your consultants or what would be the mechanism?

MS. HANMER:

I think that is part probably what we are talking about. I haven't experienced this so much in Region IV, but in Region I, I found that in our EIS contracting we basically did not build in the money that it would take to have consultants come in to our office on a regular basis to brief the decision-makers as I said other than the project officer. So, I think it is basically thinking that through and building it into the contract. There is a benefit, however, to having agency people prepare EIS's that is still foregone. And that is, I think everybody who regulates in EPA probably ought to go through the pain of preparing an Environmental Impact Statement and find out how difficult it is to get that Air agency over there to pay any attention to you because you are four years away from your actual air application. You're saying, we're trying to find this out early; and they're saying, but in our process we don't need to tell you for four years. So I really think it would be an education for all of us who think that we're making decisions to have to go through the NEPA process and find out what it really is like from the other point of view. So, that, you know, that's just another concern about, really, development of our own people that wouldn't be satisfied. But certainly, I think we could build in mechanisms that we're not now building in to the contract for interaction between the decision-maker and the contractor.

QUESTION FROM THE AUDIENCE:

This is a quick question. I was just curious. You mentioned you have done 29 EIS's in the Region, 24 in Preparation. I was curious -- do you know the median time taken to get an EIS through the process?

QUESTION FROM THE AUDIENCE:

I didn't hear the second part of your question.

QUESTION FROM THE AUDIENCE:

The median time for those in preparation. I'm leading up to are there any that don't ever get done?

JOHN HAGAN:

I'll take that question. The fact is that I do not have an accurate computed figure for the median time that it has taken us. I would estimate that for both new source and construction grants EIS's that it is probably somewhere in the neighborhood of 18 to 20 months to complete an EIS. On the ones that we have in progress right now, we're moving in both directions. We have some in the mill that are going to be very short. We have some in the mill that I think are going to be 12 to 14 month EIS's and we have some very, very large EIS's that are going to take upwards of 3 years that have been a very, very large complex process. So I think the average is somewhat misleading without considering the scope and the complexity of the project that you're dealing with. Yes sir?

COMMENT FROM THE AUDIENCE:

You mentioned briefly a process where the EPA and the applicant jointly hired a consultant to prepare an Environmental Impact Statement and you passed very quickly over the conflict of interests problems. I was wondering if you would explain a little more about how you convinced your attorneys that this was not a conflict of interests.

MS. HANMER:

Yeah, why don't you do/Since John developed it, I didn't, I'll let him talk about it.

JOHN HAGAN:

Well, I'll pass the accolades on down. The process was well into formulation stages before I got here. It was Mr. Howard on my staff who originally came up with this idea and I think has carried it through very well. Initially, the concern was simply that the consultant who prepared the Environmental

Impact Statement should be able to judge the environmental consideration without being penalized by the outcome of that decision. A permit decision obviously has three outcomes: We can issue the permit; we can deny the permit, or we can issue the permit with conditions. Now, if a consultant is under contract to an agency or an applicant and he is to prepare the environmental document and he's also going to design the facility and bring it on-line and test it and turn key operation, O.K. here it is, complete the project. That consultant obviously has an interest in the outcome of the permit decision. So, our initial concern was only for whether or not that applicant, that consultant, had a future financial interest in the outcome of the decision-making process. If he did, we figured that he would not be objective in preparing his EIS. Through various challenges, and most of these at least in informal challenges, the process has now been refined to the point that where I am almost becoming uncomfortable with it. It almost gets to the point where a consultant who has enough experience to know what he is doing is disqualified because of the conflict of interests and we have found this in particularly in industries that have very specialized requirements and very specialized kinds of knowledge. You don't find too many consultants working in the field. I guess it's fair to use the phosphate mining industry as an example of this. The phosphate mining industry is concentrated in Florida. When you find a consultant that knows anything about the phosphate industry, it's because he has worked for the phosphate industry. So, it's very difficult to walk that thin line between a consultant who knows what he is doing and one that has a conflict of interest. It's a problem that we are still grappling with. We still think that the third-party process is the most efficient and effective way to prepare an impact statement because it gets the permitting regulatory agency and applicant together early in the process and we don't get into really serious shouting matches. We do our negotiation as part of the process and not in an adversarial situation. So in spite of the conflict of interests problems, I still think it's the best way to go. Well, I didn't mean to hog the microphone from my boss, but we certainly do appreciate Rebecca being here this morning.

Our next speaker is Barbara Bramble. Barbara is an attorney with the Office of General Counsel and the Counsel of Environmental Quality. She has been in that position for about a year and prior to that she was with a public interest law firm in Washington, D. C. She received her Law Degree from George Washington University. Since coming with CEQ her principal areas of interest have been in the implementation of the new CEQ regulations and in assisting agencies in getting those regulations written and through the CEQ process. She is going to tell us a little bit about that process and the experience and information that she has gleaned from this assignment. It's my pleasure to introduce to you now, Barbara Bramble.

REMARKS OF BARBARA J. BRAMBLE

Office of the General Counsel, Council on Environmental Quality
at Environmental Impact Statement Conference,
Atlanta, Georgia - June 17 & 18

I. Development of NEPA Regulations

The National Environmental Policy Act was signed by President Nixon on January 1, 1970, as his first official act of the new decade--the heralded product of bipartisan cooperation. The clear purpose of the Act was to insure that all Federal agencies pay heed to environmental considerations. The Act stated a National Environmental Policy in Sec. 101 and in Sec. 102 creating a series of what Senator Jackson, the bill's author, called "action forcing" devices to see that the goals of Sec. 101 were achieved. NEPA, and its principal "action forcing" provision, the Environmental Impact Statement, have come a long way in these nine years. Much Federal decision-making was improved by this law. Environmental considerations were taken into account where often before they had been ignored. But other projects became bogged down in paperwork and delay. A good law, many said, but its implementation has picked up altogether too many barnacles.

This was the situation when President Carter came into office. Shortly after that he directed the Council on Environmental Quality to do something about it. "Reform the Act," he said, specifying three goals he wished pursued: (1) reduce paperwork; (2) reduce delay; and (3) see that the process results in better decision making.

We undertook a year and a half of concentrated effort to produce the new NEPA regulations. It was an extremely open review process. We solicited comments from all Federal agencies, States, businesses, labor, and public interest groups. We believe that we have accomplished those three goals. The new regulations became effective Government-wide on July 20, 1979.

Two overall factors differentiate the regulations from the old guidelines. First, is that they are regulations, not guidelines. They are mandatory and binding on all agencies. Second, they cover all of Sec. 102(2) of NEPA, not just Sec. 102(2)(C). This means that the new regulations apply to the whole process--from planning to assessment to environmental statement to decision to follow-up. The regulations make clear that, though they are restricted to the procedural provisions of NEPA, which are the provisions of Sec. 102(2), the procedures are designed to be "action forcing" devices to see that the requirements of Section 101 of NEPA, which is the statement of National Environmental Policy, are in fact carried out.

Let me now describe some of the major concepts in the new NEPA regulations:

1. Shorter documents. The regulations reduce the length of Environmental Impact Statements such that they normally not exceed 150 pages and in the case of complex proposals 300 pages.

2. Scoping. The new regulations provide for identifying everybody who will ultimately be involved in the process, involving them early and getting everybody's views as to what the important issues are. As a result, the truly significant issues will be given adequate study, while those that are not significant will not need to be analyzed at length. The results will be both a better, more rounded draft Environmental Impact Statement and a reduction in delay by reducing the need to object to an EIS and send it back for restudy before proceeding with an action.

3. Interagency Cooperation. The regulations emphasize interagency cooperation before the EIS is drafted rather than adversary comments on a completed document, which prolong the process. Now an agency other than the lead agency with jurisdiction or expertise will not just sit back and criticize somebody else's EIS. As a "cooperating agency," it will help write it in the first place. This too will produce a better draft document and will reduce the need for delays later on.

4. Interdisciplinary Preparation. New emphasis is placed on the statutory command to "utilize a systematic inter-disciplinary approach" to decision-making.

5. Alternatives. The regulations emphasize options among alternatives rather than extensive accumulations of background material that are not useful to the decision-makers or to the public.

6. Streamlining the Process. Several regulations streamline the NEPA process in a number of ways:

a. Time limits. For the first time, the regulations mandate time limits on the NEPA process at the request of the applicant.

b. Making the permit process move smoothly. Several provisions are designed to make the permit process move smoothly.

i. Identify Permits. The lead agency must identify other permits and reviews that will be necessary before a project is to proceed.

ii. Interagency Cooperation. We have undertaken the process of making commenting agencies into "cooperating agencies," which I have described.

iii. Agencies must develop procedures to aid applicants. Applicants to the Government often have difficulty in knowing what is expected of them with respect to environmental requirements. The NEPA regulations require all agencies to develop procedures to assist applicants.

iv. Reviews to run concurrently rather than consecutively. NEPA is the most pervasive environmental law. In one of the most important sets of provisions, the regulations require using the EIS to rope together all the different reviews mandated by law so that all those reviews take place at the same time with the EIS as the unifying document.

v. Information and mitigation identified early. The regulations use the EIS to force other permitting agencies to identify any information that those other agencies will need to pass upon the project and to identify any mitigation measures that will be needed for them to approve the project, so that all the information can be developed concurrently rather than consecutively. Thus, to the maximum extent possible, when the EIS is complete, all agencies with permit or review authority over the action will be in a position to take the appropriate action without further study or delay.

vi. Eliminating duplication. About half the states have some sort of environmental impact statement requirement. The regulations require federal agencies to work with appropriate state or local agencies as joint lead agencies to prepare one document that satisfies both sets of requirements. Similarly, duplication between Federal agencies is avoided by allowing one, with appropriate safeguards, to "adopt" the work of another.

7. Better Decisions and a Record of the Decision. The original congressional purpose in enacting NEPA was to see that all Federal agencies built environmental considerations into their decision-making. Often in the implementation of NEPA this purpose has been forgotten, and interest has focused on the adequacy of a document more than on the underlying concerns--whether or not the action should go forward. These regulations attempt to redress this misemphasis and place the emphasis back where it should be--is the decision sensitive to environmental considerations? The principal device we use is the record of decision--requiring the decision-maker briefly to record what the environmentally preferable alternative (or alternatives) was and then to describe how he or she balanced this with other "essential considerations of national policy" in making the decision. The regulations do not mandate the choice of the environmentally preferable alternative in every case. Quite to the contrary. They explicitly refer to other essential considerations such as economics or congressionally determined agency mission. What the regulations do require is that the decision-maker pay attention to the bottom line of the EIS--they make the decision-maker at least think about why not to proceed in what the EIS has shown to be an environmentally sensitive manner rather than in an environmentally insensitive manner. We hope that by making the decision-maker think about the environment he or she will make better, more environmentally sensitive decisions. The decision-maker's decision remains his or hers to make, subject, of course, to judicial review for compliance with the substantive and procedural requirements of Sections 101 and 102 of NEPA.

8. Follow-up. Sometime in the past the NEPA process had ended with the EIS or the decision. We want to see that what the EIS has discovered is reflected in the decision, and what the decisionmaker decided about environmentally protective measures is in fact implemented. For this reason you will see the new emphasis on mitigation and monitoring, and, where appropriate, reports on the progress of such measures.

II. CEQs 1980 Oversight Review

In the spring of 1980, CEQ undertook an examination of how these new regulations are being carried out. We examined 242 EISs, and 88 records of decisions, not, of course, for their factual adequacy but for their apparent conformity with our requirements. The following outline of our findings is being distributed to participants in meetings of federal and state NEPA personnel hosted in June and July by all 10 EPA regions (and by the Department of Interior in Alaska).

TALKING POINTS ON CEQ'S OVERSIGHT OF AGENCY COMPLIANCE WITH THE NEPA REGULATIONS

Introduction

The Council's NEPA regulations have been in effect since July 30, 1979. Over the past several months, CEQ has been reviewing agency compliance with the regulations in the areas of scoping, EIS and record of decision preparation. CEQ has reviewed 242 draft EISs filed with EPA from July 30, 1979 through February 28, 1980 and 88 records of decision reviewed through June 1980. CEQ's review was not intended to address the adequacy of any particular EIS or record of decision or pass on the merits of any proposal. Further, CEQ's review did not address questions of information or analysis which may be missing from a given EIS or record of decision. Rather, CEQ's review was confined to those aspects of the documents which are apparent on their face and whether they appear to meet the requirements of CEQ's regulations.

With respect to scoping, CEQ has contracted with Clark-McGlennon Associates (CMA) of Boston to conduct a scoping survey. Approximately 100 Federal EIS preparers and reviewers in Washington and the field who are familiar with scoping received a survey form developed by CMA, CEQ and a steering committee of NEPA liaisons from eight agencies. CMA has received survey forms from approximately half the addressees. In consultation with CMA, CEQ has come up with several general conclusions on the first phase of the study.

In cooperation with the ten EPA regional offices and EPA's Office of Environmental Review (OER), CEQ is holding meetings with field NEPA personnel to discuss the results of its findings. These meetings will discuss general points, both positive and negative, on agency compliance. They are not intended to address specific agency problems. CEQ is currently meeting with headquarters NEPA personnel to discuss specific agency concerns in detail.

We are distributing general talking points on agency compliance to date with the regulations for our regional meetings. We urge all the attendees to fully participate in these regional meetings and work with the CEQ and EPA staffs to effectively implement the CEQ regulations in a way of which we can all be proud.

Environmental Impact Statements

- Overall Evaluation - Generally agencies are not presently preparing EISs which adequately inform decisionmakers and the public of the environmental consequences of an action in a way which will assist and guide decisions. While most EISs follow our format they still tend to be more encyclopedic than analytic. However, the groundwork has been laid by many agencies to improve their documents, and the recent trend has been in favor of more analytic EISs.

- Alternatives including the proposed action (Sec. 1502.14) - Much improvement is needed in the quality of this section. It is often not the focus of the DEIS even where our recommended format is used. In other instances, the old format is used. There, a very poor non-analytical alternatives section follows a detailed description of the affected environment. Another major problem is the failure adequately to analyze the no action alternative or alternatives outside the jurisdiction and control of the lead agency. In many EISs, the alternatives are weighed in favor of construction and development. Many EISs do not emphasize mitigation measures as much as they should and do not cross-reference sections on affected environment or environmental consequences.

  Despite these problems, there are some positive signs. Some agencies have developed a good analytical approach to alternatives analysis. Those agencies give substantial treatment to each alternative, including no action and alternatives outside the agencies' jurisdiction. A number of EISs even include a comparative chart which greatly assists the public and the decisionmakers.

- Affected Environment (Sec. 1502.15) - Agencies still put too much detail in this section, often including statistics and charts which are more proper for the appendix. However, excessive presentation of the affected environment is less encyclopedic where EISs use our recommended format. We expect this section to be considerably smaller than the environmental consequences section. This section is especially poor where agencies combine a detailed project report (with verbose descriptions of affected environment) with a cursory and short EIS. There, the reader must wade through an overly detailed description of the environment in the report because the EIS does not really describe the affected environment.

- List of Preparers (Sec. 1502.17) - Some agencies have omitted this section in some EISs. Most agencies include this but merely list names and titles with very little discussion of educational background or experience and virtually no identification of areas of EIS responsibility. This even occurs where outside consultants have been retained. Because of inadequate treatment, it is hard to tell whether a systematic, interdisciplinary approach has often been used.

- Recommended Format (Sec. 1502.10) - The agencies have generally followed our format and are producing more analytic EISs. Some agencies really use our format effectively in preparing EISs which focus on alternatives section and relate that section specifically to environmental consequences with good emphasis on mitigation. Other agencies use our format but over-emphasize technical detail in affected environment section while giving insufficient attention to alternatives and environmental consequences. Some agencies use their own format to fit into their decisionmaking structure which may still result in a good analytical document.

However a number of agencies still use the old format without any compelling reason to do so. In such cases, the EISs are encyclopedic and not analytic with too much detail and insufficent focus on alternatives analysis.

- Incomplete and Unavailable Information (Sec. 1502.22) - EISs rarely even address this requirement. The need to address this and include a worst case analysis is especially critical for many new energy development projects where considerable important information is not available.

- Writing (Sec. 1502.8) - Recently filed DEISs have improved considerably in writing style and clarity. Some agencies are seriously trying to write clear documents in large type with a minimum of technical material but with enough graphs and charts to make the documents understandable by decisionmakers. Other agencies need to improve in writing style. The type is often very small and the headings are hard to follow. Also, many agencies combine overly technical project reports with very cursory EISs. While combining documents is desireable, combining an EIS with a complex technological document may defeat the goal of clear EISs. Further, many EISs use technical terminology which can only be understood by a scientifically trained person.

- Environmental Consequences (Sec. 1502.16) - This section is usually written well where the EIS follows our recommended format and focuses on the alternatives analysis. EISs following our recommended format usually analyze each alternative's impact in terms of a number of factors such as energy uses, land development (including state and local land use plans), impacts on depletable resources, socio-economic, cultural and historic resources and indirect effects, thus keying directly into the alternatives section. In general this section appears to cover the required elements on NEPA's Section 102(2)(C)(1)(ii) (iv) and (v), where agencies follow our recommended format.

  The problems in this section arise where the agency either uses the old format or combines a skimpy EIS with a detailed project report. In both instances, it is hard to get a comprehensive feeling for environmental consequences of certain actions. Some EISs are so weighted in favor of construction and development that this section often gives inadequate treatment to cumulative impacts and mitigation in light of missing information. Also, indirect and cumulative effects are often given cursory treatment, especially where information is incomplete or unavailable.

- Incorporation by reference (Sec. 1502.21) - Most EISs have a list of sources and material relied upon, which are also cited in the text of discussion. Also, the agencies often do not identify the location where studies relied upon may readily be obtained by the public.

- Appendix (Sec. 1502.18) - Most EISs include this (optional) section, which is generally analytical substantiating the EIS analysis. However, many EISs simply include detailed statistics which could have been incorporated by reference and do not key the appendices into the EIS analysis.

- List of Federal Permits and Approvals (Sec. 1502.25) - Many EISs do not adequately list all required federal permits or approvals.

- Summary (Sec. 1502.12) - The majority of agencies have written fairly clear summaries which lay out the alternatives, summarizing major impacts, and present conclusions in a readable and understandable fashion without unnecessary detail. Other agencies need to improve in this category in that it is hard to locate the summary.

- Purpose and Need (Sec. 1502.13) - The majority of agencies clearly lay out the purpose and need for action. However, a number of agencies seem to weigh this section heavily in favor of construction or development alternatives. Other agencies bury this section in other parts of EIS such as in "description of proposed environment". Some agencies mistakenly look at the purpose of the EIS rather than the purpose of the proposed action.

- The Extent to Which the EIS Advances the Requirements of Sections 101 and 102(1) of NEPA (Sec. 1502.1) - Many EISs contain too much encyclopedic detail and do not clearly focus on how the alternatives including the proposed action achieve or do not achieve the substantive requirements of NEPA (the National Environmental Policy).

Records of Decision

- Identification of Alternatives, Including Those Which Are Environmentally Preferable (Sec. 1505.2(b)) - Most RODs clearly lay out the alternatives considered. However, they often do not clearly identify the environmentally preferable alternative or alternatives. In such RODs, one must read through the entire documents before understanding which alternative is environmentally preferable.

- Clarity and Conciseness of the ROD (Sec. 1505.2) - There is a lack of uniformity in preparing concise RODs. Some RODs are far too long, having been written more for litigation than for public review. Such RODs often exceed 15 pages with detailed discussion of the proposed action, alternatives and impacts. Other RODs are far too short and inadequate in coverage. They merely identify the decision and alternatives considered and do not give a clear picture of the bases of the decision and mitigation to be required. However, a number of RODs fit within these two extremes and are clear, succinct statements of the decision as the regulations require.

- Identification of Economic and Technical Factors and Other Considerations Which Were Balanced By the Agency In Making Its Decision (Sec. 1505.2(b)) - While most RODs describe economic and technical considerations which relate to the proposal, they do not clearly discuss and analyze how such considerations led to a decision not to adopt the environmentally preferable alternative or alternatives.

- Public Availability (Sec. 1505.2) - Most RODs do not indicate public availability on their face. However, a few RODs indicate that they have been sent to interested parties. In some cases, the agency notices the availability of the ROD or even publishes the full text in the Federal Register.

- Mitigation, Monitoring and Enforcement (Sec. 1505.2(c)) - Most RODs clearly indicate mitigation and monitoring requirements. Several even list specific mitigation provisions. However, RODs generally do not describe whether all practical means to avoid or minimize adverse environmental impacts will be achieved through the specific mitigation and monitoring provisions imposed.

- Statement of What The Decision Was (Sec. 1505.2(a)) - Most RODs state what the final decision was. However, some RODs do not do this succinctly. In some cases, the agency indicates that one of several options will be acceptable and leaves the final decision up to the applicant.

Overall Evaluation - On the whole, RODs produced so far do not meet the intent of section 1505.2 as clear, concise and public statements of the agency's final decision. While RODs generally identify the decision, alternatives and mitigation, they need much improvement in clearly laying out the environmentally preferable alternative(s) and the specific considerations which were balanced by the agency in making its final decision.

CHECKLIST FOR EIS REVIEW

The following checklist will be used in evaluating compliance of EISs with our regulations. This list is confined to aspects of the EIS apparent on its face. It does not purport to evaluate adequacy or address questions of information or analysis which is missing from a given EIS.

Overall - Is the document one which will inform decisionmakers and the public of the environmental consequences of an action in a way which will assist and guide their decisions? Is the document analytic rather than encyclopedic? Is the document no longer than necessary to comply with NEPA?

Page Limits - Has the agency adhered to the page limitations in the regulations?

Section 101 and 102(1) Requirements - Does the EIS state how the alternatives considered in it and decisions based on it will or will not achieve the requirements of sections 101 and 102(1) of NEPA (as required by Sec. 1502.2(d) of the regulations)?

Cover Sheet - Does the cover sheet meet all the requirements of 1502.11?

Writing - Evaluate clarity and conciseness of EIS text and graphics (if any).

Recommended Format - Is it followed? If not, is the format followed equally clear and does there seem to be a "compelling reason" for it? If not, are the mandatory elements of Section 1502.10 being met (a, b, c, h, i, j)? Is the substance of paragraphs d, e, f, g, and k of Section 1502.10 included?

Summary - Does it stress major conclusions clearly? Is it within 15 pages?

Purpose and Need - Does it briefly specify purpose and need of the proposal?

Alternatives including the proposed action - this is "heart" of EIS. Is this put up front after purpose and need section? Does EIS focus on this section? Does the section identify the agency's preferred alternative(s) in the final EIS? Does this section sharply define issues and allow for basis of choice among alternatives? Does this thoroughly evaluate all reasonable alternatives including those outside the jurisdiction of the lead agency? Does this section give careful consideration to the no action alternative? Does this section include mitigation measures if not included in the proposed action or alternatives? Does this section cross-reference the sections on environmental consequences and appendices (if there are any)? Does this exclude overly technical considerations using techniques of incorporation by reference?

Affected Environment - Is this section confined to what is necessary to understand the effects of alternatives? Is it shorter than the environmental consequences section?

Environmental Consequences - To what degree does this section consolidate the discussion of the elements required under Section 102(2)(C)(i), (ii), (iv) and (v)? Does the section discuss indirect as well as direct effects? Does it discuss possible conflicts between the proposed action and regional, State and local land use plans, policies and controls? Does the section adequately address energy requirements, including conservation, natural and depletable resource requirements and urban quality, historic and cultural resources? Does this section give proper attention to mitigation measures? To what degree does this section unnecessarily duplicate the alternatives section of the EIS?

List of Preparers - Does this section identify the names and qualifications of preparers? Does this describe the areas in the EIS which each agency is responsible for? Is this section over 2 pages in length? Are the requirements for interdisciplinary preparation (1502.6) clearly not being met?

Appendix - If the agency has put one in, is it analytical and does it substantiate any analysis fundamental to the EIS? Does it contain unnecessary data and information which should have been incorporated by reference?

Incorporation by Reference - Has the agency incorporated material into the EIS by reference to cut down on the statement's bulk? Does the EIS briefly describe the material incorporated?

III. CEQ Follow-up

A. Questions on the NEPA Regulations

Many questions were asked by the audience, both here in Atlanta and at all the regional meetings we held this summer, on how to apply the regulations and how they should be interpreted. We have compiled the 40 most important questions, and we are answering them in writing. This paper will be made available in September or early October.

B. Study on Scoping

The Council is investigating the implementation so far of the new requirement in the regulations for scoping of EISs. This ongoing study is discussed in more detail elsewhere in these proceedings as part of the workshops that were part of the EIS conference. The final report should be completed in September, and any required guidance or advice will be published soon afterwards.

C. Records of Decision

We have attached 2 records of decision which provide good examples for format of these documents.

These two records of decision provide good examples of form for different types of actions. (The FAA ROD fails to explicitly identify the environmentally preferable alternatives, though it does rank the alternatives by environmental factors.) While the FAA ROD deals with project decisions, the DOE ROD deals with a complex program. In recommending the form of the ROD, CEQ takes no position on other issues involved in the decision.

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Requests must be received at least 5 days prior to the meeting and reasonable provision will be made to include the presentation on the agenda. The Chairperson of the Panel is empowered to conduct the meeting in a fashion that will facilitate the orderly conduct of business.

Transcripts: Available for public review and copying at the Freedom of Information Public Reading Room, Room 5B-180, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC, between 8:00 a.m. and 4:00 p.m. Monday through Friday, except Federal holidays.

Issued at Washington, DC on April 23, 1980.

Edward A. Frieman,

Director of Energy Research.

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Office of the Secretary

Geothermal Demonstration Program; Record of Decision

Pursuant to Regulations of Council on Environmental Quality (40 CFR Part 1505) Implementing Procedures of U.S. Department of Energy (45 FR 20694).

Decision

The U.S. Department of Energy (DOE) has elected to jointly fund a project to build and operate a 50 megawatt (MWe), goethermal demonstration power plant at Baca Location No. 1 in Sandoval County, New Mexico, under a cooperative agreement with the Union Geothermal Company of New Mexico and the Public Service Company of New Mexico.

Project Description

The geothermal demonstration power plant project will convert the heat energy from a geothermal resource into electric power. The project's goal is to show that electricity can be produced from this nation's geothermal resources in an economical and environmentally acceptable manner. The project involves the design, construction, and operation of a commercial-scale, electric power plant using a liquid-dominated hydrothermal reservoir as an energy source. Liquid-dominated hydrothermal reservoirs are the most common type of geothermal resource. Information derived from the project will be made available to the geothermal industry and other interested groups as a means to accelerate geothermal resource development.

The demonstration plant will be located on about 746 acres of land within Baca Location No. 1 (Baca), a private landholding in north-central New Mexico. The site is approximately 60 miles north of Albuquerque and 19 miles west of Los Alamos. The plant will be a single-flash steam unit generating 50 MWe gross from 103 psi steam. The steam supply system will consist of 15-17 geothermal wells, piping, 4 steam separators, and a liquid waste injection system. Other plant systems will include: turbine-generator, shell-and-tube condenser, mechanical draft cooling tower, hydrogen sulfide abatement system, and an electrical switchyard. Electricity will be transported from the site by a 115-kV transmission line which will connect the plant to a substation near Los Alamos. Pending a right-of-way permit from the U.S. Forest Service, the transmission route will be the northerly of the two alternatives described in DOE's Final Environmental Impact Statement (FEIS) for the project. Of the two alternatives this route will have the lesser environmental impact.

The project will be cost-shared about equally between DOE and its industrial partners, the Union Geothermal Company of New Mexico (Union) and the Public Service Company of New Mexico (PNM), under a cooperative agreement. The industrial partners will be responsible for building and operating the plant. Title to all facilities and equipment acquired during the course of the project will vest in the industrial partners. DOE will end its participation in the project after 5 years of plant operation.

Description of Alternatives

The following alternatives were considered by DOE in reaching its decision:

1. Do not participate in the funding of the project (no Federal action);
2. Delay funding of the project;
3. Fund a nonelectric use of the geothermal resource;
4. Develop a different site within the Baca;
5. Develop a different site at another location within the United States;
6. Use an alternate plant design;
7. Use and alternate transmission route.

Alternatives 1, 4, and 5 would result in no action being taken at the site of the proposed project. The remaining alternatives would involve some form of activity at the site.

Alternatives 4-7 contain options within each alternative. Under alternative 4, two other sites near the proposed site within Redondo Canyon were considered, as well as the Sulfur Canyon area. Redondo Canyon and Sulfur Canyon are the two areas of known geothermal resources within Baca. Other locations within the United States (alternative 5) that were considered included: (1) Imperial Valley, California; (2) Roosevelt Hot Springs, Utah; and (3) Beowawe, Nevada. At present, these are the only other locations with confirmed liquid-dominated hydrothermal resources to support a 50 MWe demonstration power plant. Under alternative 6, different system designs were considered for condenser cooling, hydrogen sulfide abatement, and power cycle. These are the plant systems most likely to affect the environment. Besides the two transmission routes to the Los Alamos substation, two other routes (alternative 7) were considered. These routes would tie the plant to the load center at Albuquerque via a substation at San Ysidro.

Basis for Decision

Recent international events underscore the need to decrease this nation's dependence on imported energy. The inflationary pressure wrought by the high cost of energy imports has affected the national economy. Energy has become an international economic and political weapon which, at present, can be used against the United States.

As one means of coping with the problem of dependence on foreign oil, the Congress passed the "Federal Non-nuclear Energy Research and Development Act of 1974" (Pub. L. 93-577). This law calls for the implementation of a program to develop the broadest range of non-nuclear energy options on an urgent basis. Geothermal energy is one such option. It can figure prominently in helping to alleviate the Nation's critical shortage of environmentally acceptable energy sources.

If developed vigorously, DOE believes geothermal energy can contribute 5 percent of the Nation's energy supply by the year 2000. The most plentiful geothermal resource, the liquid-dominated hydrothermal (hot-water) resource, could produce as much as 20,000 MWe of electric power within 20 years.

Congress has recognized the great potential of geothermal energy by enacting the "Geothermal Energy Research, Development, and Demonstration Act of 1974" (Pub. L. 93-410). The law directs that a national Geothermal energy research, development, and demonstration program be pursued. That program is to include: (1) An inventory and assessment of geothermal resources; (2)

development of exploration, extraction, and utilization of technologies; (3) design, construction and operation of demonstration plants; and (4) establishment of a loan guaranty program. The intent of the Congress is clear: Geothermal resources must be developed to their maximum practicable capability, and a demonstration program is an esential component of that development. Accordingly, under Pub. L. 95–238 the authorization and an initial appropriation of $12 million were given for the first geothermal demonstration power plant. These actions were critical steps in implementing the national energy policy of accelerating the development of new domestic energy sources.

A survey of geothermal industry representatives, including 25 developers, 23 utilities, 13 engineering firms, and 6 financial institutions, found over a 2 to 1 ratio in favor of a Government-supported demonstration power plant. At present, much of the industry is reluctant to act totally on its own. The reasons for this reluctance depend on which industry sector is involved, but they all relate to a lack of confidence. The industry needs to acquire the confidence that geothermal energy can be produced profitably and at low risk. Such confidence can be gained from a federally-supported, commercial-scale demonstration power plant.

The geothermal demonstration power plant project at Baca is DOE's major programmatic effort to stimulate commercial development of hot-water geothermal resources in fracture-dominated reservoirs. The project is not intended to demonstrate a new technology; the technology is well known. Rather, the project is intended to show that hot-water geothermal energy is economically competitive, reliable, and environmentally and socially acceptable.

Whereas several hot-water geothermal power plants have been built and operated successfully in other countries, they do not reflect the market conditions that prevail in this country. There is still much hesitancy on the part of developers, utilities, and lenders to proceed with geothermal development. Recently, some cautious, tentative steps have been taken, aided in part by the geothermal loan guaranty program. Albeit the private development of several prime geothermal resources in the Imperial Valley of California is encouraging, it does not obviate the need for the demonstration project.

DOE has authorized contract negotiations with San Diego Gas & Electic Company to build a 50 MWe, binary-cycle geothermal power plant at Heber in Imperial Valley. The primary objective of this plant is to demonstrate the binary conversion technology at a commercial scale in a moderate temperature resource. The other resources in Imperial Valley are being developed at less than commercial scale. Magma Power Company is building a 10 MWe pilot plant at East Mesa. At Brawley, Union Oil Company and Southern California Edison are also building a 10 MWe pilot plant, and at Salton Sea, Magma Power Company may build a 10 to 20 MWe flashsteam pilot plant. Apparently, commercial-size (50 MWe or greater) power plants will not be considered by these firms until the results from the pilot plants are known.

Nor are the detailed results from the pilot plants or other private developments likely to be given to the general public. In contrast, the demonstration project will yield technical, economic, and environmental information which will be immediately distributed to the geothermal industry and other interested parties. Such information will influence corporate decisions about proceeding with the commercial development of geothermal resources. Similar information from private developments in Imperial Valley and elsewhere will not be made available so freely or quickly.

Even if information from plants in Imperial Valley were freely available, it would probably not stimulate development at many new locations. The geothermal resources in Imperial Valley occupy a sedimentary basin, a reservoir type which is representative of less than half of this nation's known geothermal resources. The demonstration project will use a fracture-dominated reservoir, the predominant type outside Imperial Valley. Thus information from the demonstration power plant will have broader applicability than similar information from Imperial Valley plants.

At the present time, Baca is the best place to prove the commercial viability of hot-water geothermal resources from fracture-dominated reservoirs. The size of the resource at Baca is large, and DOE's industrial partners have affirmed their intention to proceed with full scale development as quickly as possible. This intention is consistent with DOE's objectives for the demonstration program and satisfies the national policy of hastening the commercial use of alternative energy sources.

The geothermal demonstration power plant project at Baca was selected through a competitive procurement process. A Program Opportunity Notice was issued by DOE on September 30, 1977. Two firm proposals were received. They were ranked by a Source Evaluation Board, and the proposal by Union-PNM was judged superior.

The advantages of supporting Union-PNM to build and operate a demonstration plant at Baca include:

1. *System Design.* These are no technological uncertainties; all major components have proven performance records. The hydrogen sulfide abatement system employs the best commercially available technology. Cooling tower makeup will be supplied by steam condensate, thereby minimizing the plant's water requirements. The plant is very likely to perform at or better than design specifications.

2. *Geothermal Resource.* The geothermal resource is high grade, having a high temperature (260 deg C) and a low salinity (10,000 ppm TDS), and is typical of many other high grade resources in the country. The geothermal reservoir is very likely to provide sufficient energy to operate a 50 MWe power plant for 30 years. Estimates of the ultimate commercial potential of the resource range from a minimum of 400 MWe to greater than 2000 MWe. The resource could figure prominently in the future energy supply of New Mexico and nearby states.

3. *Service Area.* The plant will serve Los Alamos, an area which has experienced voltage drop problems in the past and will likely have an increased power demand in the future. The Los Alamos Scientific Laboratory, a weapons development facility of national importance, will use a sizeable fraction of the power generated.

4. *Capabilities of the Government's Partners.* Union Geothermal Company, a subsidiary of Union Oil Company, is a major industial concern with 20 years of experience in geothermal energy development. The Public Service Company of New Mexico is a privately-owned utility serving over half the residents of New Mexico. Both partners have made firm commitments to developing and using geothermal energy, and they have assembled a capable, experienced staff to manage the project.

5. *Cost Sharing.* Project costs will be shared about equally between the Government and its partners. Both partners have more than adequate financial resources to complete the project. Union Oil Company has an AA credit rating; PNM's bond rating is AA. Under terms of the cooperative agreement, the Government's share in the cost of the plant is fixed; Union-PNM will pay for any cost overruns except those caused by delays in completing the NEPA process. After six years of

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successful commercial operation. Union will reimburse the Government for up to as much as 50 percent of DOE's share in the cost of the plant.

6. *Information Gathering and Dissemination.* Technical, economic, and environmental data from all phases of the project will be collected and analyzed. The resultant information will be promptly and freely distributed to the geothermal industry, regulatory agencies, and the interested public. A comprehensive public communications [illegible] will be conducted.

[illegible] project's major disadvantage is [illegible]tential for environmental and [illegible]tutional impacts. The major issues of concern are: (1) Degradation of air quality due to the release of hydrogen sulfide; (2) depletion of surface and ground water supplies; (3) infringement on Indian religious practices; (4) reduction in the number of land use options for the Baca; (5) destruction of habitat of the Jemez Mountains salamander, a New Mexico State endangered species; and (6) scenic intrusion from the transmission line.

Should the 50 MWe demonstration project prove successful, there is a reasonable likelihood that DOE's industrial partners would pursue development of the entire geothermal resource at Baca. The environmental effects of exploiting those resources could be proportionately greater than the effects from a single 50 MWe power plant. Environmental information from the demonstration project will be available to help in determining the extent of those effects. DOE believes that with proper planning and mitigation the impacts from full scale geothermal development can be held within acceptable limits.

In summary, the geothermal demonstration power plant project fulfills the congressional mandate given in 1974 to include demonstrations as part of the national geothermal program. The project satisfies DOE's programmatic need to show the economic integrity of commercial power generation from hot water resources. If successful, the project should foster rapid geothermal development in the Baca and elsewhere. That development is essential if geothermal energy is to achieve its potential of up to 20,000 MWe by the year 2000.

Discussion of Environmentally Preferred Alternatives

Of the seven action alternatives, alternatives 1, 2, 5, and 6 were judged to be environmentally preferred. Alternatives 3, 4, and 7 would impact the Baca area at least as much as the proposed project. Any nonelectric use equivalent to a 50 MWe power plant (alternative 3) would cause greater environmental impact, besides being inconsistent with the goals of the demonstration. Since alternatives 3, 4, and 7 offered no substantive advantages over the proposed project, they were rejected.

The ultimate environmental consequences of alternative 1 (no Federal action) and alternative 2 (delay funding of the project) are essentially the same. Although DOE may withdraw from the project (i.e., no Federal action), the industrial partners would be free to proceed if they so choose. The resultant delay in the development of the Baca's geothermal resources could be as long as 5 to 10 years. A delay in Federal funding (alternative 2) would probably cause a somewhat shorter hiatus in development. No major breakthroughs in plant design or control technology that would reduce environmental impacts are likely during the interim. Therefore, the ultimate environmental impacts from the two alternatives would probably not differ greatly from each other or those of the proposed project.

Alternatives 1 and 2 appear to offer no clearcut environmental advantages over the proposed project in the long term. However, they do have major programmatic disadvantages. Alternative 1 would result in neither a demonstration as authorized by Congress nor information on the economics of power production from hot-water resources. Alternative 2 would postpone the transfer of information to the geothermal industry, thereby retarding the development of those resources. Both alternatives contradict national energy policy to accelerate the use of alternative energy sources. The adoption of either one would indicate to the public a lack of urgency on the Government's part to develop new energy sources. In view of these consideration, the two alternatives were rejected.

Under alternative 5, three different areas were considered as candidate sites for a demonstration project: (1) Imperial Valley, California; (2) Roosevelt Hot Springs, Utah; and (3) Beowawe, Nevada. Of these, only Heber in the Imperial Valley was actually proposed as a site in response to the Program Opportunity Notice. Heber has several environmental advantages in comparison with Baca. At Heber, there are no conflicts over land use; the natural setting has already been altered by agricultured practices; there are no rare and endangered species, nor are there any cultural or archeological resources nearby; and there is a ready supply of cooling water. Institutionally, there are no known impacts on Indian tribes or other groups.

Despite its positive environmental and institutional aspects, Heber was rejected as the site of the demonstration project. The Heber proposal was judged to have major technical, management and business weaknesses; it was not fully responsive to several program objectives.

Moving the demonstration plant to another site would require reissuing the Program Opportunity Notice. This action would produce an additional 2–3 year delay in the demonstration program. And there is still no assurance that an acceptable project at an environmentally preferred site would be proposed. The resultant delay in finding another site would probably reinforce industry's hesitancy to use geothermal energy. An effect contrary to national energy policy may be produced: geothermal energy development plans by industry could be cancelled or deferred. In addition, several of the advantages inherent to the Baca project would probably be lost or changed. These include the provisions for a Government cost ceiling and revenue sharing. A similar demonstration plant at another locality would cost more, resulting in higher costs to the Government. On the basis of these factors, alternative 5 was rejected.

Design variations in major plant systems affecting the environment were also considered (alternative 6). These included the cooling system, hydrogen sulfide abatement system, and power cycle.

Of the available cooling system options, dry cooling towers and wet/dry cooling towers are environmentally preferable. Both system consume far less water than wet towers. Dry cooling towers are especially effective, and they also eliminate the cooling system as an emission source for noncondensable gases and drift. However, dry cooling towers operate at high turbine back pressures with concomitant losses in plant efficiency. Wet/dry towers, which operate in either wet or dry mode depending on air temperature, would have intermediate effects in terms of water consumption, emissions, and plant efficiency. Industry studies show both options would increase power plant costs per kilowatt at least 50 percent over the cost of a plant using a wet cooling system. The demonstration plant's wet cooling system will use steam condensate for makeup, thereby minimizing fresh-water requirements. Hence, the net benefits gained by using optional cooling systems were judged not to be worth the increased cost.

The plant will employ the Stretford process for hydrogen sulfide abatement. This process represents the best commercially available technology for removing hydrogen sulfide from geothermal fluids. The copper sulfate process currently under development may be superior. but a scrubbing system using this process has not been operated at a commercial scale. Since commercially available technology is a key requisite of the demonstration. the copper sulfate process was rejected. Other commercially available abatement systems are either too expensive or too inefficient to be considered. Furthermore. the Stretford-based system will enable the plant to meet the New Mexico ambient air standard for hydrogen sulfide.

The plant will have a single-flash design for extracting geothermal heat. This power cycle design is consistent with the quality of the resource. A binary cycle design in which heat is transferred to a working fluid. has environmental advantages: the geothermal fluid is contained: there are practically no gaseous emissions. and all fluids are returned to the reservoir. On the other hand. all cooling water makeup must be obtained from an external source. Binary cycles operate more efficiently at moderate temperatures (150–200 deg C). whereas the geothermal fluids at Baca exceed 250 deg C. A binary design was rejected at Baca because of higher costs. cooling water requirements. and inefficient use of the geothermal resource.

Considerations in Implementation of the Decision

DOE is acutely aware of the many concerns that have been expressed about the potential environmental and institutional impacts from the Baca demonstration project. The Pueblo Indians have been expecially concerned about depletion of their water supply and interference with their religious practices. In implementing its decision DOE will use every reasonable means to avoid or minimize harm to the environmental and Indian religious practices.

The plant design incorporate various features intended to minimize environmental impacts. The best commercially available hydrogen sulfide abatement system will be used. All cooling water makeup will be obtained from geothermal condensate thereby eliminating the need for an external water supply. All waste waters will be injected into the geothermal reservoir. minimizing the chance of contaminating fresh water supplies.

In addition. mitigation measures will be employed during both the construction and operation of the plant. These measures. along with plans for environmental monitoring. are described in Chapter 11 of the FEIS and summarized in Attachment 1. Special considerations to be taken with regard to each of the major environmental issues are summarized below.

The power plant will comply with the New Mexico ambient air quality standard for hydrogen sulfide. Although recently relaxed. this standard is still the most stringent of any in the country. Hydrogen sulfide emissions form the plant are expected to meet the standard. Precautionary measures will be taken to limit the amount of gases released to the atmosphere during well testing. The New Mexico State Health and Environment Department is responsible for enforcing the standard.

The effects of geothermal fluid withdrawals on the fresh water supplies of the Baca area are uncertain. The best available information suggests the depletion would be minor (i.e., one percent of lowest flow recorded in the Jemez River). But the information is limited. Depletion of water supplies will be offset by a reduction of water use in the Jemez River basin. Union will acquire the water rights to 34.6 acres of irrigated land at the headwaters of the Jemez River. About 14 of those acres will be withdrawn from production to counteract the expected depletion from the plant. In order to verify the depletion estimates. an intensive hydrologic monitoring program will be instituted. All major streams in the Baca area will be sampled and gaged. The All Indian Pueblo Council. an organization of Pueblo tribes. has proposed to collect data from water sources on Indian lands. If monitoring reveals a depletion of supplies greater than expected. additional irrigated lands will be withdrawn from use.

Infringement on Indian religious practices is the most difficult issue to mitigate satisfactorily. This difficulty is due mainly to the refusal by the Pueblo Indians to furnish specific information on these practices.

DOE has made an exhaustive effort to determine the potential impacts of the demonstration project on Indian religious practices. Pursuant to the Congressional Joint Resolution on American Indian Religious Freedom (Pub. L. 95–341). DOE consulted extensively with Indian tribal leaders and outside experts on Pueblo religion in order to ascertain whether the project is located on or near sacred Indian religious sites involving the conduct of specific religious practices. Comments pertaining to the infringement issue were received on the draft environmental impact statement. and comments were made by tribal leaders at a DOE-sponsored hearing conducted by the All Indian Pueblo Council.

During the preparation of the FEIS. DOE carried out additional consultations with Pueblo representatives. Despite repeated efforts. however. DOE was unable to obtain detailed information on specific religious practices and. therefore. was unable to evaluate the potential impacts of the project on the practice of religion. Several Pueblos have protested against the project. but they have not provided examples of infringements of specific religious practices on the grounds that secrecy is an important principle of the Pueblo religion.

As a result of its consultations with the Pueblo Indians. a review of property rights in the project area. and currently available information. DOE has determined that:

(1) The Pueblos do not possess property rights in the Baca sufficient to support a valid claim of infringement on any specific religious activities that occur on the Baca.

(2) There has been no showing by the Pueblos that the project will infringe their religious freedom.

However. DOE will make every effort to pursue a mitigation plan to minimize those generalized impacts that the Pueblos allege. The All Indian Pueblo Council has proposed to assist DOE in the preparation and execution of such a plan.

The Baca is a National Natural Landmark and is being considered for possible public acquisition. Various options for public ownership and management have been studied. The only one that conflicts directly with geothermal development is inclusion of the Baca as part of the national park system under the National Park Service. Since Union holds an unencumbered geothermal lease to the Baca. suitable accomodations for development would have to be negotiated between Union and the future landowners. DOE can take no direct mitigative action on this issue.

Large numbers of the Jemez Mountains salamander are present in Redondo Canyon. site of the demonstration project. Ecological surveys have shown that habitat for this New Mexico endangered species is abundant throughout the site but patchily distributed. The best way to effectively mitigate impacts on the species is to avoid the habitat. Where possible. all project facilities including transmission lines will be located so as not to disturb salamander habitat. If

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some habitat must be disturbed. the affected individuals will be captured alive and relocated. The New Mexico Game and Fish Department has approved these mitigation measures.

The Baca corridor. the northerly of the two transmission alternatives. has been selected for the project. This corridor has the least visual impact of any alternative anyalyzed in the FEIS. In addition. steps will be taken to reduce visibility of the transmission line from public use areas: the right-of-way will be routed through the less visible portions of the corridor: long spans will be used at road crossings: a vegetation screen will be maintained along roads and near other public use areas.

Mitigation plans will also be carried out for the following environmental issues: ecological effects from construction activities: reduction in water quality: loss of historic and archeological information: effects of noise due to construction and operation: and the consequences of accidents. Plans for dealing with these issues are listed in Attachment 1.

Conclusion

The benefits derived from the demonstration project have been balanced against the potential environmental and institutional impacts. including those allegations by certain Indian tribes of infringement on religious freedom. In addition. reasonably available project alternatives have been considered. As a result of these evaluations. DOE has decided to proceed with its participation in the project. Nevertheless. DOE is concerned about the project's potential environmental and institutional impacts and is taking reasonable measures to mitigate them.

Dated: May 5. 1980.

Ruth M. Davis,

Assistant Secretary. Resource Applications, United States Department of Energy.

Concurrence:

Dated: April 30, 1980.

Richard J. Stone,

Director, Office of Intergovernmental Affairs, Office of the Secretary of Energy.

ATTACHMENT 1.—ENVIRONMENTAL MITIGATION AND MONITORING PLANS FOR THE 50 MWe GEOTHERMAL DEMONSTRATION POWER PLANT, BACA LOCATION No. 1, NEW MEXICO (SUMMARY)

Mitigation of Construction Impacts

- Land use—Nighttime construction traffic will be avoided.
- Water quality and use—Accepted construction practices to prevent erosion will be used. Roads and drill pads will be diked. Runoff will be directed to settling ponds before discharge to streams.
- Air quality—Disturbed areas will be watered to control dust. Gaseous emission during well testing will be vented through submerged discharge tubes and well flow will be reduced after testing.
- Impacts on biota—Clearing of forest areas will be minimized. Disturbed areas will be revegetated with native species. A survey will be conducted to determine presence of rare plants immediately before construction. Areas with rare plant populations will be avoided if possible.

Identified elk herd wallows and favored feeding areas will be avoided as much as possible. Forest cover will be maintained around construction areas to screen them from elk herd use areas.

Dense Jemez Mountain salamander population areas will be avoided where possible. Where avoidance is not possible. removal and relocation of individual salamanders will be carried out by biologists.

Erosion control measures will be carried out to prevent adverse effects on aquatic biota.

- Historic and archaeologic sites—An extensive program of archaeological testing and evaluation by the University of New Mexico Office of Contract Archeology. Department of Anthropology. will be conducted in advance of surface disturbance activities.
- Indian religious and cultural activities—The policies and procedures outlined in the report to the President by the Interagency Task Force on Indian Religious Freedom for compliance with the American Indian Religious Freedom Act (Pub. L. 93-341) have been followed. A plan to lessen perceived impacts on the Pueblo religion will be developed in cooperation with the All Indian Pueblo Council. an organization of Pueblo tribes.
- Noise impacts—Use of noisy construction equipment will be restricted to daylight hours. Muffled diesel drilling rigs will be used. Wells will be vented through submerged discharge diffusers.

Mitigation of Plant Operation Impacts

- Water quality and use—A comprehensive spill mitigation and prevention plan is on file with the State of New Mexico. This plan covers containment of spill. control of spill sources. cleanup. repair of damages. responsibilities of individuals. notification of spills. and training of personnel.

Fluids will not be withdrawn from or injected into shallow aquifers. Drilling fluids and vented fluids will be held in high freeboard pits with impermeable linings.

Depletion of Jemez River flow will be mitigated by acquisition and retirement of water rights.

- Air quality—The Stretford process will be used to remove hydrogen sulfide from the gothermal fluid.

Drift eliminators will be used on the cooling towers to reduce drift to the lowest practicable level.

- Accidents—Pipeline ruptures will be isolated by shutting back production on appropriate wells and diverting flow into reserve pits.

Blowout prevention equipment will be used on both exploration and production wells.

Mitigation of Transmission Line Impacts

- U.S. Department of Agriculture criteria for route planning. tower design. right-of-way clearing and line construction will be adhered to.
- Vegetation clearing will be held to a minimum.
- Long spans will be used at stream crossings to minimize disturbance to stream banks and reparian vegetation.
- A detailed engineering and soil stability survey of the transmission line route will be carried out to identify locations where soil conditions are unsuitable for construction. The line will be routed to avoid these areas.
- The line corridor will be surveyed for archaelogical resources before final line placement. A detailed mitigation plan submitted to the State Historic Preservation Officer will be implemented.
- Disturbed areas will be reseeded immediately after line construction.
- Line construction near elk calving areas will not occur during the calving season.
- Line will consist of wooden towers and non-specular cable to lessen visibility.
- Right-of-way will be placed to reduce visibility of line from public use areas.
- A screen of vegetation will be maintained between the line and public use areas and roads.

Preoperational Monitoring

- Terrestrial biology—Five baseline studies were completed between 1974 and 1978 and included vegetational surveys. sampling of small mammal populations by live trapping. bird transect surveys. elk pellet group transect counts. and general observation of sign and scat for larger mammals. A detailed survey of rare and endangered species was conducted.
- Aquatic biology—Preoperational monitoring of aquatic biota in Redondo Creek. Sulphur Creek. and the San Antonio River has been completed. including physical descriptions. sampling and taxonomic description of algal communities. and sampling and qualitative description of macroinvertebrate benthic communities.
- Hydrologic—Limited monitoring of discharges of Redondo Creek. Sulphur Creek. San Antonio Creek. and the East Fork of the Jemez River have been carried out during the past five years.

The commercial partners will carry out a preoperational ground water monitoring program to establish regional baseline ground water quality. water levels. and movement. Three data collections will be made per calendar year.

Additional surface and ground water monitoring will be conducted on or near Pueblo Indian lands.

- Atmospheric—Air Quality monitoring has been carried out. including sampling at 30 stations for hydrogen sulfide. Meteorological data (wind speed and direction) were collected at locations in the project area. Temperature. humidity. and precipitation at the project office site are also recorded.

Operational Monitoring

- Terrestrial biology—Operational monitoring will extend over the first five years of plant operation and will include avian, mammalian, faunal reconnaissance, Jemez Mountains Salamander, and Peregine Falcon monitoring.

Monitoring of flora will include:

(1) Completion of identification of both taxa and plant associations.

(2) Delineation of study points.

(3) Monitoring components seasonally for changes in vegetation type and physiological stresses.

- Aquatic biology—Operational monitoring will include:

(1) Collection and species identification of macrophytes.

(2) Sampling and generic identification of periphyton.

(3) Sampling and qualitative description of macroinvertebrate benthos, and

(4) Qualitative description of fish communities.

- Hydrologic—Surface water quality and aquatic biota will be monitored at seven locations in the Baca area. Monitoring will include measurements of water velocity and discharge, dissolved oxygen, free carbon dioxide, carbonate and bicarbonate alkalinity, conductivity, water temperature, turbidity, suspended solids, dissolved solids, pH, total nitrogen, and total phosphorus. The preoperational ground water monitoring program will be continued, as will hydrologic monitoring on or near Pueblo Indian lands.
- Atmospheric—Data will be collected at four stations, two fixed and two mobile. Hydrogen sulfide and suspended particulates will be measured. Winds and atmospheric stratification will also be measured.

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ENVIRONMENTAL PROTECTION AGENCY

[FRL 1490-8]

Ambient Air Monitoring Reference and Equivalent Methods; Equivalent Method Designation; Meloy Laboratories, Inc.; Model SA 700 Fluorescence Sulfur Dioxide Analyzer

Notice is hereby given that EPA, in accordance with 40 CFR Part 53 (40 FR 7044, 41 FR 11255, 41 FR 52594), has designated another equivalent method for the measurement of ambient concentrations of sulfur dioxide. The new equivalent method is an automated method (analyzer) which utilizes a measurement principle based on ultraviolet stimulated fluorescence. The method is described as follows:

ESQA-0580-046, "Meloy Model SA 700 Fluorescence Sulfur Dioxide Analyzer," operated on the 0-250 ppb,* the 0-500 ppb, or the 0-1000 ppb range with a time constant switch position of either 2 or 3. The analyzer may be operated at temperatures between 20° and 30°C and at line voltages between 105 and 130 volts, with or without any of the following options:

FS-1 Current Output
FS-2 Rack Mount Conversion
FS-2A Rack Mount Conversion
FS-2B Rack Mount Conversion
FS-3 Front Panel Mounted Digital Meter
FS-5 Auto/Manual Zero/Span with Status
FS-6 Remote/Manual Zero/Span with Status
FS-7 Auto Zero Adjust

Note.—Users should be aware that designation of ranges less than 500 ppb are based on meeting the same absolute performance specifications required for the 0-500 ppb range. EPA is considering but has not yet established proportionately more restrictive performance specifications applicable to ranges less than 0-500 ppb. Thus, designation of this lower range does not guarantee commensurably better performance than that obtained on the 0-500 ppb range.

This method is available from Meloy Laboratories, Inc., 6715 Electronic Drive, Springfield, Virginia 22151.

A notice of receipt of application for this method appeared in the Federal Register, Volume 45, April 2, 1980, page 21703.

A test analyzer representative of this method has been tested by the applicant, in accordance with the test procedure specified in 40 CFR Part 53. After reviewing the results of these tests and other information submitted by the applicant, EPA has determined, in accordance with Part 53, that this method should be designated as an equivalent method. The information submitted by the applicant will be kept on file at the address shown below and will be available for inspection to the extent consistent with 40 CFR Part 2 (EPA's regulations implementing the Freedom of Information Act).

As an equivalent method, this method is acceptable for use by States and other control agencies for purposes of 40 CFR Part 58, Ambient Air Quality Surveillance (44 FR 27571, May 10, 1979). For such use, the method must be used in strict accordance with the operation or instruction manual provided with the method and is subject to any limitations (e.g., operating range) specified in the applicable designation (see description of the method above). Vendor modifications of a designated method used for purposes of Part 58 are permitted only with prior approval of EPA, as provided in Part 53. Provisions concerning modification of such methods by users are specified under Section 2.8 of Appendix C to Part 58 (44 FR 27585).

Part 53 requires that sellers of designated methods comply with certain conditions. These conditions are given in 40 CFR 53.9 and are summarized below:

(1) A copy of the approved operation or instruction manual must accompany the analyzer when it is delivered to the ultimate purchaser.

(2) The analyzer must not generate any unreasonable hazard to operators or to the environment.

(3) The analyzer must function within the limits of the performance specifications given in Table B-1 of Part 53 for at least 1 year after delivery when maintained and operated in accordance with the operation manual.

(4) Any analyzer offered for sale as a reference or equivalent method must bear a label or sticker indicating that it has been designated as a reference or equivalent method in accordance with Part 53.

(5) If such an analyzer has one or more selectable ranges, the label or sticker must be placed in close proximity to the range selector and indicate which range or ranges have been included in the reference or equivalent method designation.

(6) An applicant who offers analyzers for sale as reference or equivalent methods is required to maintain a list of ultimate purchasers of such analyzers and to notify them within 30 days if a reference or equivalent method designation applicable to the analyzer has been cancelled or if adjustment of the analyzers is necessary under 40 CFR 53.11(b) to avoid a cancellation.

(7) An applicant who modifies an analyzer previously designated as a reference or equivalent method is not permitted to sell the analyzer (as modified) as a reference or equivalent method (although he may choose to sell it without such representation), nor to attach a label or sticker to the analyzer (as modified) under the provisions described above, until he has received notice under 40 CFR 53.14(c) that the original designation or a new designation applies to the method as modified or until he has applied for and received notice under 40 CFR 538(b) of a new reference or equivalent method determination for the analyzer as modified.

Aside from occasional breakdowns or malfunctions, consistent or repeated non-compliance with any of these conditions should be reported to: Director, Environmental Monitoring Systems Laboratory, Department E (MD-77), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

Designation of this equivalent method will provide assistance to the States in establishing and operating their air quality surveillance systems under Part

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DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

NEW ENGLAND REGION
12 NEW ENGLAND EXECUTIVE PARK
BURLINGTON, MASS. 01803

RECEIVED
MAR 21 1980

Runway 22 Right Departure Procedures

Logan International Airport

RECORD OF DECISION

Decision: The FAA has selected Alternative 6 as the procedure for turbojets departing Runway 22 Right at Logan International Airport.

Alternatives Considered. Many alternatives were examined. Six were selected for full analysis and testing:

Alternative 1.	210 degree compass heading.
Alternative 2.	180 degree compass heading with right turn.
Alternative 3.	180 degree compass heading with left turn around.
Alternative 4.	140 degree compass heading to intercept the 160 degree radial of the Boston VORTAC.
Alternative 5.	195 degree compass heading to intercept the 220 degree radial of the Boston VORTAC.
Alternative 6.	100 degree compass heading to 5 DME, then course divergence depending on initial destination.

These alternatives were examined for operational feasibility and safety, noise impacts, economic effects, fuel consumption, efficient use of the navigable airspace in terms of aircraft operating expenses and delay, air quality effects, and induced socio-economic effects. The accompanying Final Environmental Impact Statement contains both a summary and detailed analyses of each of these factors. The discussion that follows will indicate how each factor was weighed in making this decision.

Alternatives 3 and 4 proved to be safe only in light traffic conditions. They also were extremely inefficient in terms of use of the available navigable airspace resulting in severe capacity restrictions. These alternatives are, therefore, excluded from further consideration.

In evaluating the remaining four alternatives, the following factors were considered:

Operational Feasibility and Safety. All four procedures are operationally feasible and safe in terms of air traffic control, airspace use, and pilot workload. Alternative 1 is in essence a straight ahead departure and therefore the easiest to execute. Alternative 2 requires a sharper initial left turn than does Alternative 1; other than that, they involve essentially the same workload. Alternative 5, because it requires a left turn after takeoff followed very shortly by a right turn, is the most difficult to execute consistently. Alternative 6 requires new aircraft arrival and departure corridors to be established. Accordingly, the rank order based solely on this factor is:

1. Alternative 1
2. Alternative 2
3. Alternative 6
4. Alternative 5

Noise Impact. Noise contours using the Day Night Sound Levels were produced for each alternative using the Integrated Noise Model. The populations within each contour from $L_{dn}65$ to $L_{dn}80$ were calculated. These estimates of people affected describe each alternative in terms of its noise impact. The number of people within the $L_{dn}65$ contours ranged from a high of 91,300 to a low of 2,800. The rank order based solely on this factor is:

1. Alternative 6
2. Alternative 2
3. Alternative 5
4. Alternative 1

Economic Effects and Energy Consumption. Each alternative other than the base case (Alternative 1) requires additional miles of flight. These miles have been translated into additional direct aircraft operating costs and fuel consumption on an annual basis. The added cost ranges from $282,000 to almost $7,000,000. The added fuel consumption ranges from 222,000 gallons to 5,310,000. The rank order based solely on this factor is:

1. Alternative 1
2. Alternative 2
3. Alternative 5
4. Alternative 6

Air Quality Effects. The hydrocarbon, carbon monoxide, oxides of nitrogen, and particulate matter emissions were computed for each alternative and compared to the base case. The variations among the alternatives were minor although those alternatives which took the aircraft farther from populated areas in the later stages of the departure climb produced less impact. The rank order based solely on this factor is:

1. Alternative 6
2. Alternative 2
3. Alternative 5
4. Alternative 1

Induced Socio-Economic Effects. A reduction in the number of people exposed to $L_{dn}65$ or greater will directly impact the quality of life in the Boston area. Some studies have indicated that a reduction in the exposure to aircraft noise will likely result in an increase in property values in those communities. Conversely, an increase in exposure to aircraft noise may result in a decrease in property value. The Town of Hull contends that the adoption of Alternative 6 will have a substantial adverse economic effect on it. The Town of Milton contends that adoption of Alternative 5 would cause a decline of over $100 million in its properly values alone. The City of Quincy estimates that the adoption of Alternatives 2 or 5 would cause a decline of $160 million.

Each alternative impacts on schools, hospitals, and places of worship as well as residential areas. These effects are accounted for by measuring and comparing the number of people subjected to projected noise levels in excess of $L_{dn}65$.

The rank order based solely on this factor is:

1. Alternative 6
2. Alternative 2
3. Alternative 5
4. Alternative 1

Other Environmental Considerations. None of the acceptable alternatives creates other significant environmental impacts.

Rationale for the Decision

In terms of Operational Feasibility and Safety, there are no meaningful distinctions to be drawn among Alternatives 1, 2, 5, and 6.

There are no meaningful distinctions to be drawn among the acceptable alternatives on the basis of Air Quality Effects or Other Environmental Considerations.

The Induced Socio-Economic Impacts are difficult to describe precisely but the populations affected by levels in excess of $L_{dn}65$ provide an accurate measure of relative effect.

The decision basically comes down to considering and balancing the Noise Impacts of each alternative with the Economic Effects. The primary, indeed predominant, economic effect is the increased fuel usage which translates into the increased costs of operation imposed by Alternatives 2, 5, and 6. Set out below is a summary of the noise impact and energy cost of each alternative;

Alternative	Noise Impact (People removed from $L_{dn}65$ or higher)	Added Fuel Cost (In gallons per year)
1 (base case)	0	0
2	54,700	585,000
5	24,800	222,000
6	88,500	5,310,000

Clearly each alternative which decreases the number of people seriously impacted by aviation noise simultaneously increases the energy cost. Any alternative other than Alternative 1, involves greater fuel usage in a period of rising fuel costs which has motivated extensive federal, state and local initiatives to conserve fuel. At the same time, the FAA has a responsibility to take reasonable, appropriate steps to mitigate and eliminate where possible the adverse impacts of aviation noise.

As in most decisions of this kind, there are no objective criteria available to compare the value or benefit of removing an identifiable number of people from the noise impacts of levels of $L_{dn}65$ or higher against the cost imposed by requiring the usage of additional fuel. There is a value judgment to be made. In this case, the FAA has determined that the substantial and significant noise impact reduction achievable by the adoption and implementation of Alternative 6 warrants its selection even though it imposes the most significant increase in fuel usage of all the alternatives studied.

The FAA considers that all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted.

ROBERT E. WHITTINGTON
Director, New England Region

3-14-80
Date

Enclosure

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Below are the questions directed to Ms. Bramble following her remarks at the EIS Conference:

SAM CALHOUN, Tennessee Valley Authority:

Have there been any significant court decisions about the CEQ Regulations?

BARBARA BRAMBLE:

The question is whether there have been significant court decisions about the CEQ Regulations. There has only been one, so far, and as the General Counsel, my boss, keeps saying, it's a regulator's dream. Before the regulations went into effect the Supreme Court received a case in which they were called upon to decide, actually not anything about CEQ Regulations at that time, but they decided that something would be appropriate because they had been blessed. This particular mode of operation had been blessed by the CEQ regulations and these should be given great deference. This was the case of Sarah Club vs. Andrews last summer, it was May or June, and since then there has been no litigation at all. I think that kind of took care of that problem.

TERRY SIEMSEN, Corps of Engineers, Louisville District:

I am concerned that you're having your discussions with the Washington level of our agencies and not with the local ones. We're having monologue here and not a discussion. I can take two hours to discuss the problems that you're seeing and give you our side because we're the people who are preparing the impact statements; the people in Washington are only reviewing them. It was mentioned before, until you've written an impact statement you don't realize the problems there are. I'm concerned that our people in Washington, who have never written the impact statements, don't know what our problems are. They don't know what we're telling them, so they can't tell you, and they can't respond to your questions.

BARBARA BRAMBLE:

Interestingly enough, I spent yesterday afternoon in a meeting with the Washington people saying, "Oh, my God, you're going out to the regions before you're talking to us."

TERRY SIEMSEN:

Talk to them; I think you should talk to them, but if you want to know what's going on, you have to talk to us because I think you're not getting the best story.

Two more points. First of all, your question of lead versus cooperating agencies. I think that is an important point. We work as both lead and cooperating. I think there is more of a problem of lead agencies not listening to cooperating agencies. There is a significant problem. At least one Federal agency or probably two (since we're not naming names, I won't name one to you.)

The second question, on legal memorandum on transmission lines, pipe lines. We have a problem at our agency because we're in the water -- we're in the intake structures and barge facilities -- and the handle is there and the power plants associate with that. The transmission line is third hand. So our people are telling us not to do anything with the transmission lines. We need to have that memorandum, we need to have it clear, and we need to have it soon. When is it coming?

BARBARA BRAMBLE:

Well...

TERRY SIEMSEN:

If it's 6 months from now, that helps; if it's a year or two from now, that doesn't help.

BARBARA BRAMBLE:

Oh no! It's within 6 months for sure. Anything else?

QUESTION FROM THE
AUDIENCE:

Is there a written report of the things you've just been covering with us?

BARBARA BRAMBLE:

Yes there is, but it's very specific, agency by agency, and we're going to give the parts that refer to each agency to them in specific meetings. The findings of the first part of it, we will be happy to make available. Yes?

JOHN LITTLE, Dames & Moore Consultants:

I don't recall anything in your review of findings about setting of time limits and meeting of time limits. Did you include that?

BARBARA BRAMBLE:

We haven't worked on that yet; that doesn't appear. In other words, until somebody brings us some evidence of its working or not working, we really have nothing to go on. What we were doing was collecting the EIS's that exist and looking at what they show on their face. But I certainly have no information so far on how the time limit provision is written. Yes?

GEORGE MASSLEY, Federal Energy Regulatory Commission, Atlanta, Ga.:

Referring to transmission lines, I find that I'm not sure if it was passed over or not, but by law FERC is the sole regulatory agency for altering transmission lines, and in fact, we carry out this responsibility covering whether a pipe line involves construction of a new facility at its terminus or not.

BARBARA BRAMBLE:

I was referring to a situation in which it wouldn't be another Federal agency involved. If for instance, the Corps was the only one and in many cases that's the case. You're stuck looking at a pipe line going some place, that's a discharge and the project itself is private. So that's where it comes up. There isn't a question of lead cooperating or anyone contacting FERC, its a question of the old Feds involved here in the Corps. Yes?

QUESTION FROM THE AUDIENCE:

In light of the recent court decision involving the enforcement of provisions of the EIS on MARTA here in Atlanta, do you consider an EIS an enforceable document?

BARBARA BRAMBLE:

Right; they change it in a certain respect, in other words, it is true that an EIS has not been a contract, a promise, any kind of enforceable document. It is an information document and that's what it's for. It doesn't have in it guarantees that the studies are correct in all cases and it's not possible to estimate exactly what's going to happen in the kind of studies that belong in a predictive document like an EIS. But when a project is approved on a certain basis, with requirements to make noise limitations to a certain level or to prevent as much as possible erosion problems, those requirements are only made when they can be documented and when there is some sort of standard to apply and when there are specifications in the work that's to be done. That's the kind of thing that mitigation and monitoring requirements have in them and that appears in the Record of Decision. And in those cases it's hard enough a requirement that it can be enforceable and that will change the findings that this court made about the EIS itself. I think it's appropriate that the EIS maintain a separate status as a predictive decision making document. Any more questions?

JOHN HAGAN:

Thank you all very much and Barbara, we appreciate this report from CEQ. I think all of us are fighting through this problem of dealing with the new regulations and trying to interpret exactly what the regulations say and how to re-translate what the regulations say into what we have to put into 150 pages.

Our next speaker comes to us from the Office of Environmental Review in Washington. He is the Director and as such, he is one of the key policy makers as it relates to the NEPA process and the environmental review process in EPA and he is very influential in the Agency's decision making and policy setting role. He comes to us with a considerable amount of experience, some ten years with the Corps of Engineers in the Legal Section and he worked through that program into the Corps of Engineers' Counsel for Environmental Programs. He was directly involved in the implementation and some subsequent legislative changes to the Section 404 of the Clean Water Act. So, Bill is certainly not a newcomer to the NEPA process or to environmental programs in general. At this time, it is my pleasure to introduce to you Mr. Bill Hedeman.

ENERGY AND THE ENVIRONMENT

William N. Hedeman, Jr.
Director, Office of Environmental Review
U. S. Environmental Protection Agency
Washington, D. C.

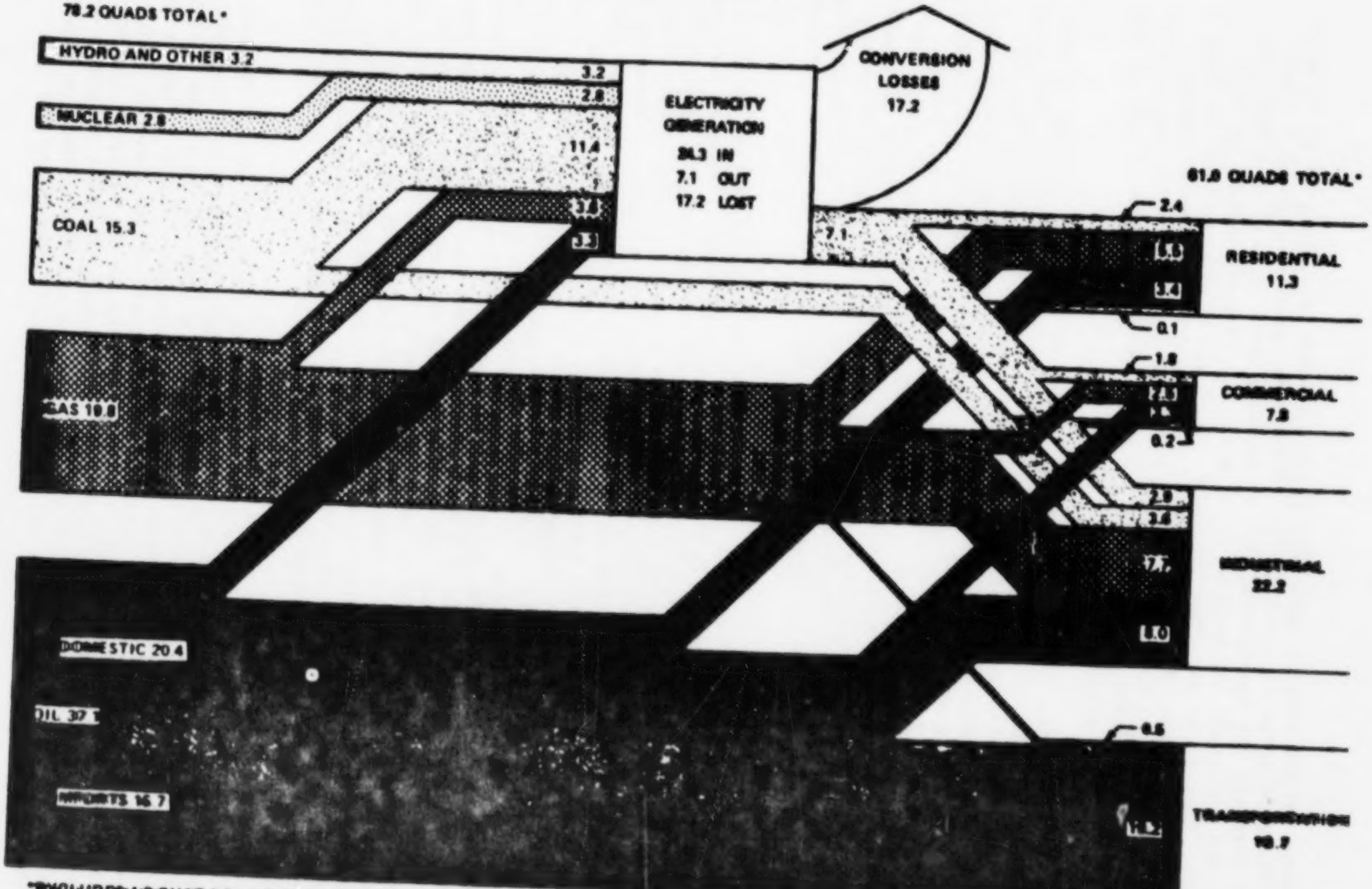
Good morning. It's a pleasure to appear before you, such a large number and I suppose as I was thinking how to begin this, I reflected on an experience that happened to me about three months after I came to EPA and I was aksed to go to New Orleans and speak to a group of the Society of American Military Engineers. I was presented to the group by the Division Engineer in that area who I had known while I was at the Corps of Engineers and he was very complimentary of the professional relationship that each of us had and he gave, as John has, my background and also noted that I taught at George Washington University's Law School -- I teach water law there -- and then he ended by saying that the only thing that he's never been able to understand was why in the world I went to work for EPA. And I pondered that myself and thought over the months for an explanation, and many of you who have seen or heard me speak from time to time know that I often am fond of quoting from Murphy's Law and other reasons why things go wrong. And there is, in that book, a quote from what's called H. L. Makin's Law and that is to the effect that, "those who can, do and those who cannot, teach; and those who cannot teach, administrate." So, I feel that probably is the best explanation.

The subject of energy in the environment is one that perhaps could be the focal point of an entire conference. As a kick off, it seems to me that I want to relate to you a little bit my experience and the nation's experience in the development of water resources. Those who have never been involved in that would find that from a Federal perspective, the Federal government's initial involvement in water resources came in 1824 when the Congress became interested in maintaining the Nation's navigable waters as an avenue for commerce and they turned to the Corps of Engineers to do this or to give them this initial responsibility because the only educational institution in the country at that point, that had anything to do with engineering, was West Point. The Industrial Revolution of the country that went through the remainder of the 19th century and into the 20th century, focused on the engineering capabilities of the country and, indeed, if anything was technically feasible, we proceeded to carry it out regardless of any other considerations. The floods that occurred in this country in the early 1930's committed this country to a flood control program relating to water that would attempt to harness rivers such as the Mississippi River and to control the property devastation related to that. But about 1936, when Congress became more intensely involved in this exercise, they pointed to what I call the second "E" of the equation, Economics, and said that even though there is no doubt that something may be, engineeringly speaking, feasible, we are not going to proceed in a direction to support that unless it also is economically realistic and many of you in this room will have found yourself involved in the so-called "cost benefit analysis," which is a direct spin-off of the 1936 direction by Congress that water projects, at least, must yield benefits at least equal to or greater than the costs. So, from 1936 on I can report to you that the country was focusing on 2 E's: Engineering and Economics. And that pretty much followed a course without change until 1970 when the third E, Environment, became part of the equation. All of you are involved in that and for me to dwell on the history of that would be clearly repetitious to everyone in this room.

Today we find ourselves confronted with the fourth E, Energy, and the challenge before us is whether or not we will cast out the experiences we gained with the first three E's: Engineering, Economics, and the Environment, and focus directly on supplying and dealing with our energy needs regardless of economics, regardless of the engineering and in the case that I hope is of great interest to all of us today, regardless of the environment. I want to review with you the prospects of that situation, not only from what the perspective of what the problem is, but what the proposed solutions to the problem are.

Now, I brought some view graphs with me and probably no one will be able to see them and so the exercise will be to nought. But we are going to try anyway to use them as somewhat of a graphic example of the problem. And maybe the first problem is that I may be in the way of part of the view graph. Many would look at this and immediately say that this graph right here is the problem because it's overwhelmingly confusing. I'm not sure who is responsible for creating it, but when you study it for a bit it does demonstrate basically what the issue is. It reflects the 1979 statistics on energy consumption within the United States in terms of quadrillion BTUs and so in energy parlance we speak in terms of quads. There are essentially 5 sources of energy now utilized within the U. S. A sixth source is not depicted on this. It would include 1.8 quads for what is referred to as bio-mass, pulp and paper products, firewood, etc., that is used to create energy. The scale depicts, in terms of proportion, starting with the smallest and going to the largest, the five sources of energy: hydro-electric, nuclear, coal, gas, and oil. Oil is broken down into domestic production and imported oil. And what it intends to do is to demonstrate how each one of these sources of energy feeds into a demand. For example, hydro-electric energy, nuclear energy, and portions of coal and oil all feed into the generation of electricity. Where we see that roughly 24.3 quads are produced, of that, 17.2 quads are lost in the overall production of the energy, and 7.1 quads go out of the system to either residential demands or to commercial demands or to industrial demands. Similarly, we see that gas supplies are funneling into the production of electricity, but also are being directly funneled into residential use or industrial use to the tune of 19.8 quads. Coal is 15.3 quads and thus far is only third in terms of the energy types of sources within this country. And finally, the largest one, oil, is broken down into domestic and imported. Right at the present time, 37.1 quads of energy are produced from oil or roughly half of all of the energy production in the U. S.

1979 U.S. ENERGY CONSUMPTION
(QUADRILLION BTUS)



*INCLUDES 1.8 QUADS OF BIOMASS USED IN THE PULP AND PAPER INDUSTRY NOT CURRENTLY ACCOUNTED FOR IN DOE STATISTICS.

In total we are dealing with 78.2 quads. Of that oil, some of it is used for the generation of electricity. Perhaps an equal portion, 3.4 quads, goes directly for residential use to generate heat as well as commercial use, but obviously the bulk of it is going for transportation, or 19.7 quads. That is to say that at least 2/3 of all of the oil used in this country, according to this schematic, is being directly routed toward transportation. I can't envision that someone in this room is not directly involved in at least one aspect of the types of energy products and projects related to this entire schematic.

Now, as we see it, the issue has to be looked at not only in terms of the problem, but also in terms of the energy policy that is evolving from that. The energy problem is primarily a dependence on foreign oil and that dependence has brought to this country problems obviously with the economics, with a declining supply of oil, and with the vulnerability of that resource. As to the policy that is evolving out of the administration and out of Washington, it seems to be in a four pronged effort. First of all, there will be measures to increase production of energy sources within this country. Secondly, there will be measures to develop alternative sources of energy. Thirdly, and one that I think many of us with an environmental concern would focus on, are measures to conserve energy. And finally, measures to expedite the decision process.

Now, I want to briefly go over with you both the problem and the policy from the standpoint of flushing in the skeletons, so to speak. From an economic perspective, we see that domestic energy costs in this country fell, not rose, by 30% between 1950 and 1970, and so we have a sense of being within this country that has taken energy for granted until very recently. Wage and price controls in 1971 were lifted in 1973 for everything except oil and so the price of oil has not risen at the same rate as one would expect other prices. And in 1971, the U. S. paid 4 billion dollars for oil imports, whereas by 1979, only 8 years later, we are paying 50 million dollars. Still looking at the energy problem, we have that of domestic production. U. S. proven oil reserves started to decline in 1961 and the production in 1970 has declined from 9.2 million barrels per day to 8.7 million barrels per day. At the same time, in 1973 we imported 35% of oil and in 1977 we had gone up to 48%, for a 15% increase. Now, I've tried to use some of the political cartoons, compliments of the Washington Post, to demonstrate the perception of the problem in Washington which many describe as 17 square miles surrounded by reality. In any event, when one gets into the question of relying on foreign countries for oil we see the next problem which is related to energy, which is vulnerability.

Saudi Arabia is the U. S.'s largest supplier of crude oil at the present time. Recent internal developments within that country, including the take over of the Mosque in Mecca, have raised a great deal of concern as to the stability of that country and the reliability of it as a source of oil. Nigeria is our second largest supplier; it contributes 13% of all of our imports. It has threatened on occasion to cut off those supplies on the basis of our policy in Rhodesia and South Africa. Then we go to Libya, the fourth largest supplier in the U. S. They account for 8% of all of the oil that comes into the country. They, too, have increasingly threatened to cut off exports to the U. S. The

ENERGY PROBLEM: DEPENDENCE ON FOREIGN OIL

- ECONOMICS
- DECLINING SUPPLY
- VULNERABILITY

ENERGY POLICY

- MEASURES TO INCREASE PRODUCTION
- MEASURES TO DEVELOP ALTERNATE SOURCES
- MEASURES TO CONSERVE ENERGY
- MEASURES TO EXPEDITE THE PROCESS

I. ENERGY PROBLEM

A. Economic:

Domestic energy costs fell by 30% between 1950 and 1970.

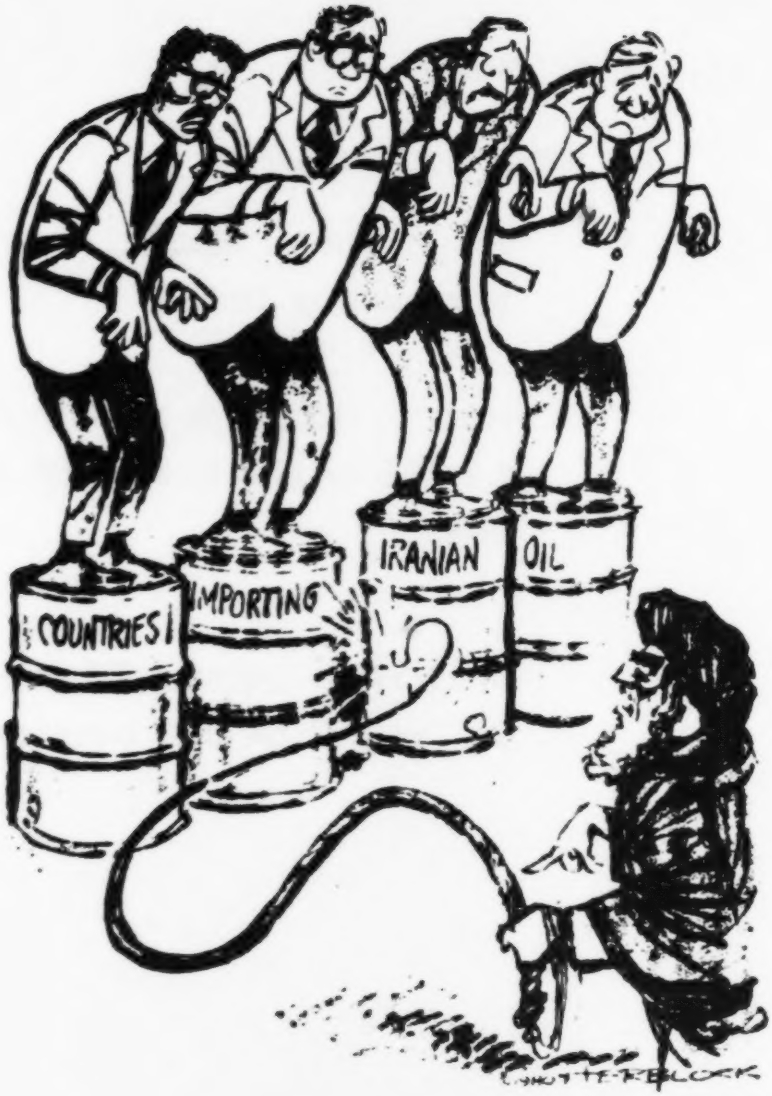
Wage and Price controls imposed in 1971 were lifted in 1973 for all areas except oil.

In 1971 the U.S. paid $4 billion for oil imports, by 1979 oil imports cost $50 billion.

I. ENERGY PROBLEM

B. Domestic Production:

- U.S. proven oil reserves started to decline in 1961.
- Domestic production declined from 9.2 MMBD in 1970 to 8.7 MMBD in 1978.
- In 1973 U.S. imported 35% of its oil, by 1977 the U.S. imported 48%.



"SIT!"

IRANIAN
OIL
IMPORTING
COUNTRIES

I. ENERGY PROBLEM

C. VULNERABILITY:

- SAUDI ARABIA - OUR LARGEST SUPPLIER OF CRUDE OIL REPRESENTING 18% OF U.S. IMPORTS - MAY HAVE INTERNAL PROBLEMS BASED ON THE TAKE OVER OF THE MOSQUE IN MECCA.

- NIGERIA - OUR SECOND LARGEST SUPPLIER OF OIL CONSTITUTING 13% OF OUR IMPORTS - HAS THREATENED TO CUT-OFF SUPPLIES TO THE U.S. ON THE BASIS OF OUR RHODESIAN AND SOUTH AFRICAN FOREIGN POLICY.

- LIBYA - THE FOURTH LARGEST SUPPLIER OF CRUDE OIL TO THE U.S., ACCOUNTING FOR 8% OF U.S. IMPORTS - HAS REPEATEDLY THREATENED TO CUT-OFF OIL EXPORTS TO THE U.S.

- THE COMMUNIST BLOC, WHICH NOW SELLS SURPLUS OIL TO NON-COMMUNIST COUNTRIES WILL BECOME A NET IMPORTER BY 1982.

- THE MIDDLE EASTERN OIL FIELDS ARE WITHIN 900 MILES OF THE SOVIET UNION.

Communist Block Countries right now are exporters of oil. By 1982 they will become an overall net importer, thereby taxing the international drain even more. And finally, the Middle Eastern oil fields are only within 900 miles of the Soviet Union. This next graphic depicts all of the countries that we rely on in terms of oil production. I have not included Venezuela, for example, or Canada or Mexico, but the point to be made is that energy independence within this country is far from being achieved.

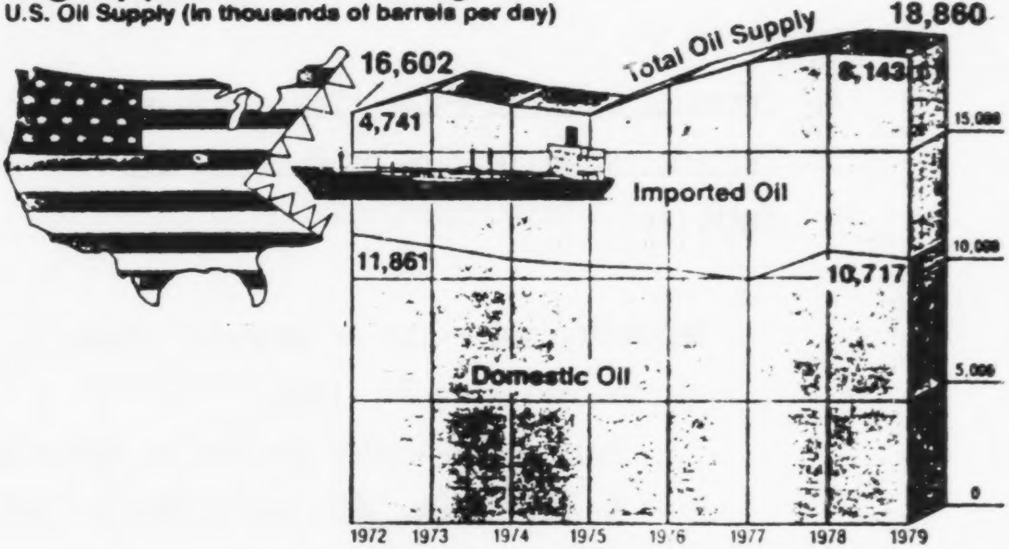
We move on to the energy policy within the country. And the first one is to increase domestic production in order to manage and allocate our domestic oil supplies. The proposal or projection under that policy is to decontrol the price of domestic crude oil by September 30, 1981. This, as estimated, will produce a net savings of 400,000 barrels per day by that year and about one million barrels per day by 1985. It also is felt that the increased revenues from this move will provide incentives to increase domestic production of oil by 1 million barrels per day by 1985. Other proposed plans include immediately decontrolling heavy oil which is produced predominantly on the West Coast in order to bring about an increased production of about 200,000 barrels per day by 1981, and encourage the recovery of oil within the territorial seas. The energy policy also focuses on the development of alternative sources of energy. First, we have the emphasis on increased coal use. One of the major environmental issues confronting the Carter administration in the last three months has been legislation, referred to as the "oil back out legislation," to bring about the conversion from oil or natural gas to coal or fossil fuel plants generating electricity. In Phase I of that, 3.6 billion dollars under the proposal would be pumped into 107 power plants presently using oil or natural gas to produce electricity to convert to coal, saving an estimated 400,000 barrels per day by 1985. Phase 2 of this will involve 6 billion dollars of additional Federal monies to encourage voluntary conversions of other oil and gas fossil fuel plants. A major problem, particularly as it relates to Canada, has evolved in that we know that coal, particularly that which is not below sulfur in content, is precipitating a major problem with respect to acid rain, a problem whose consequences we begin to know more and more about, but whose causes and whose ability to control we seem to be only on the early frontiers of realizing. Notwithstanding that, it's becoming a major international problem between this country and Canada and in the oil back out legislation that the administration has proposed to the Congress, the Canadian government has expressed a great deal of dissatisfaction with the concern that will be triggered with respect to their environment as a result of anticipated acid rain.

As a result, there is 400,000 dollars earmarked to deal with the acid rain problem. In addition, the legislation calls for the expedited review of 42 environmental impact statements that will be prepared by the Department of Energy relating to these coal conversions.

The second facet of the energy policy deals with alternative sources of energy and in that would be synfuels, coal liquifaction, coal gasification, oil shale, unconventional natural gas, and bio mass or gasohol. I can tell you, for those who have not seen the paper this morning, that apparently yesterday afternoon,

Big Appetite for Foreign Oil

U.S. Oil Supply (in thousands of barrels per day)



Thus, imported oil as a share of all U.S. supply has risen from 29 percent in 1972 to 43 percent today.

Note: Numbers for 1979 are January-June.

Our Largest Suppliers

	Thousands of Barrels Per Day	Share of All Imports
1. Saudi Arabia	1,479	17.8%
2. Nigeria	1,102	13.2%
3. Venezuela	719	8.6%
4. Libya	678	8.1%
5. Algeria	634	7.6%
6. Canada	548	6.6%
7. Virgin Islands	484	5.8%
8. Mexico	413	5.0%
9. Indonesia	409	4.9%
10. United Arab Emirates	309	3.7%

Note: Figures are averages for first four months of 1979. Virgin Islands totals are refined products originating elsewhere.

Source: U.S. Dept. of Energy; American Petroleum Institute

II. ENERGY POLICY

A. Increase Domestic Production: Manage the Pricing and Allocation of Domestic Oil Supplies

Decontrol the price of domestic crude oil by September 30, 1981.

- This will produce savings of 400 k/Bd by September, 1981 and 1 MMBD by 1985.
- This will increase domestic production by 1 MMBD by 1985.

Immediately decontrol "heavy oil" resulting in an increased production of 200 kB/d by 1981.

Encourage territory oil recovery through price incentives resulting in an increase of 1 MMB/d by 1985.

II. ENERGY POLICY

B. Develop Alternative Sources of Energy

1. Increase Coal Use:

   Convert oil or natural gas fired power plants to coal. "Oil Backout".

   Phase I - $3.6 billion to convert 107 power plants to coal - saving 400 k B/d by 1985.

   Phase II - $6 billion for voluntary conversion to save 600 k B/d by 1990.

   Environment - $400 k for pollution control, acid rain.

   NEPA - expedited review - 42 EIS's contemplated - no legislative EIS.

II ENERGY POLICY

B ALTERNATIVE SOURCES

2. SYNFUELS

- COAL LIQUIFACTION
- COAL GASIFICATION
- OIL SHALE
- UNCONVENTIONAL NATURAL GAS
- BIOMASS (GASAHOL)

the House and Senate conferees agreed to an alternative source synfuel piece of legislation that will permit 20 billion dollars of Federal monies in the development of synfuels. I am only able to report that bit of information because the newspaper I was reading you was enclosed in a plastic bag and attached to the door of one of the motel rooms and I could only read the first two paragraphs of the article. I commend, for further details, you, like I haven't, could invest a dime for the paper. Now, there is a good deal of skepticism as to what will happen when the Federal government turns on the pipe, so to speak, to deal with synfuel. This is not that good of a graphic, but you have the President up here turning on the pipe, the Department of Energy, the oil companies, the environmentalists, the White House, and the Congress with an intermesh of involvement with red tape coming out as the final product. And that is one aspect that the Senate will decide. You also have this cartoon depicting synfuels and the wife saying, "and if it isn't the great new synfuel that America has been waiting for; who is going to clean this mess?" And that, perhaps is the issue that all of us confront today.

Alternative sources also are focusing on the development of solar and unconventional sources of energy. For example, the encouragement of solar, of wind, of bio-mass sources, through tax credits, establishing a solar bank, funding demonstration projects, developing gasohol fuels to a demonstration project, increasing the production of hydro-electric power and increasing nuclear energy, which most in this area feel is an inevitable result. On the hydro power point, I would raise with you the fact that there is legislation that seems to have reached agreement within both the Senate and the House to authorize the construction of small hydro-electric projects. So many of you in this region will become involved with environmental assessments that either are identified with the agency proposing to construct and/or license those types of projects and/or the review of them.

We're also, in energy policy, dealing with the question of conservation. The Department of Energy has a number of programs to bring about residential energy conservation both in new homes and in older homes. These programs, if you can believe it, are triggering environmental issues by themselves. We find, for example, that in our effort to bring about facilities, commercial and residential buildings that are airtight, if you will, and therefore, not inclined to leak energy, that the air tightness has produced a major and severe indoor air quality problem of such magnitude that there is concern. One would be, without dealing with the problem in a responsible way, one would find themselves in greater jeopardy of exposure to air pollutants in an air tight building than one would on the outside in terms of outdoor air quality. We are working, my office and the other groups within EPA, are working with the Department of Energy to factor concerns for air quality into these types of conservation programs. Some of the other points on the slide depict that Federal agencies themselves, including EPA, are looking at programs that they fund and grant to try to come up with alternative ways in which we can deal with the conserving of energy. Now, some of this can go to the extreme, as this cartoon depicts, "Henry, it's the thermostat police at the door!" I think that without that fear of extreme the whole effort of conservation is one that is very much on the mind of EPA and all of the Federal agencies in terms of how to respond to the problem. Now, the problem is not

II. ENERGY POLICY

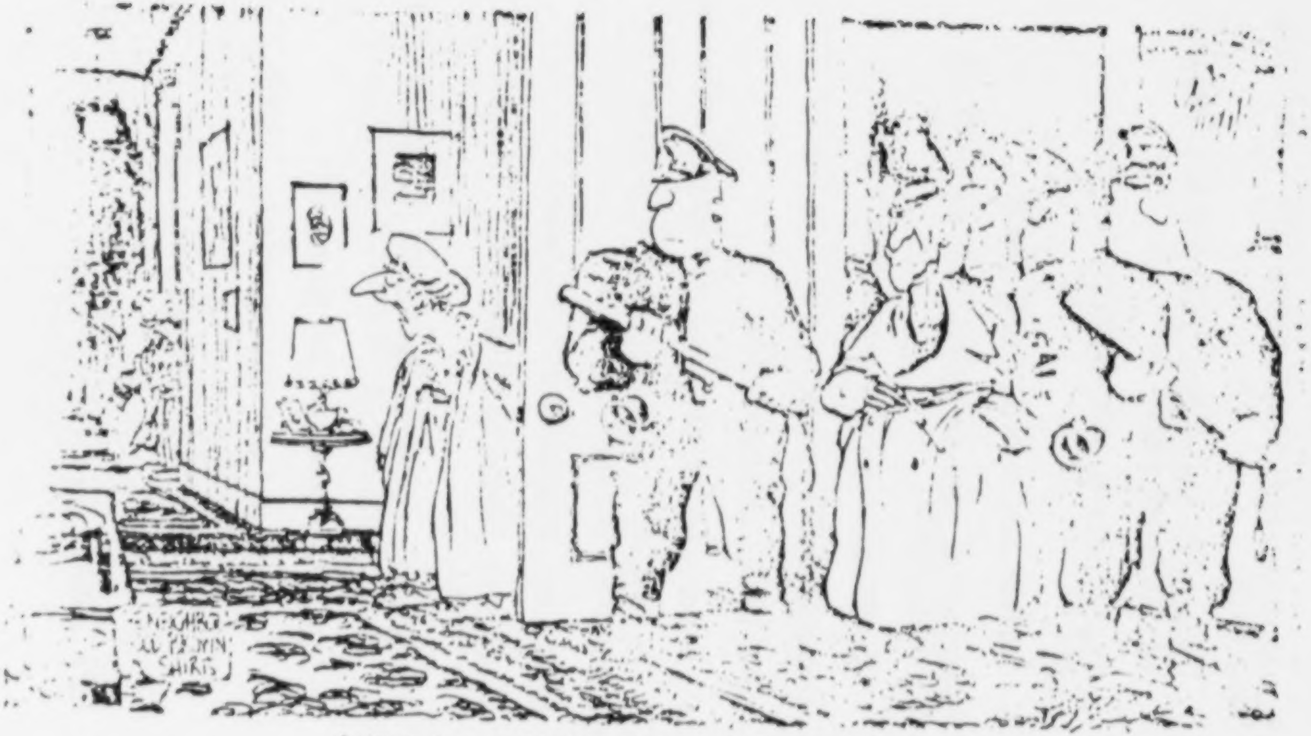
B. ALTERNATIVE SOURCES

3. DEVELOP SOLAR AND UNCONVENTIONAL SOURCES.
   - ENCOURAGE SOLAR, WIND, WOOD, ETC. THROUGH TAX CREDITS.
   - ESTABLISH A SOLAR BANK.
   - FUND DEMO PROJECTS FOR OCEAN THERMAL, ETC.
4. DEVELOP GASOHOL FUELS.
   - ESTABLISH A $100 MILLION GRANT PROGRAM FOR DEVELOPING GASOHOL FACILITIES.
5. DEVELOP GEOTHERMAL.
   - BOCCA RANCH DEMO PROJECT NEW MEXICO.
6. INCREASE PRODUCTION OF HYDRO POWER.
   - DOE GRANTS AND SUBSIDIZES.
7. INCREASE OUTPUT FROM NUCLEAR ENERGY:
   - NUCLEAR COULD EXPAND FROM CURRENT 13% OF TOTAL ELECTRICITY PRODUCTION TO 20% BY 1985.

II. ENERGY POLICY

C. Encourage Energy Conservation

1. Residential Energy Conservation - Existing Buildings.
   - Final EIS and final regs on RCS Program (2 sections reserved).
   - Installation and Material Standards UFFI.
   - Indoor air quality and radon.
2. Residential and commercial conservation - New Buildings.
   - Draft EIS and proposed rules issued.
3. Weatherization Program for Low Income Housing.
4. Industrial conservation.
   - Voluntary program to encourage recyling.
   - Eliminate barriers to co-generate EIS under preparation.
5. Emergency conservation Planning.
   - Energy Emergency Handbook: Issued final.
   - Standby Federal Emergency conservation plan: Issued as proposed rule.
6. Federal government conservation.
   - Federal agency guidelines: Issued as proposed.
   - E.O. 12185 and Federal financial assistance.
7. EPA Energy Initiatives.



'HENRY — IT'S THE THERMOSTAT POLICE!'

totally due to the fact that we lack energy because others, when they have discussed this with the Congress, have pointed to the problems of delay and the problems of inconsistency in decision-making. So there is a belief that the Federal process has got to be both streamlined and coordinated.

As most of you know, there is pending legislation to create an energy mobilization board, and one of the projects that has been focused on as a major example of why there must be an energy mobilization board is a refinery, the Hampton Rhodes Energy Refinery, that recently was permitted in the State of Virginia. That refinery, I guess, has been part of my own personal history because I dealt with that thing for three and a half years while I was at the Corps of Engineers and one and a half years while I was at EPA. And all that is to say that we are dealing with a proposal that took 5 years before final reviews and decisions on it were reached. Now without commenting on the merits of the decision, what I want to do is to try to depict by this exactly how long it took to make that decision.

You have, in 1975, the refinery people applying to the Corps of Engineers for permits to construct a pier and do some dredging relating to the refinery itself, and in 1976, about half way into the year, they then went to the State of Virginia and began to activate that process for the NPDES permit. In the meantime, on the top line you have the Corps of Engineers progressing along through the development and issuance of the draft environmental impact statement and getting comments on that Draft EIS. As the thing moves along into 1977 you still have the Corps of Engineers line up here going through the permit process and at the same time the industry has also filed at EPA for a PSD air permit, and EPA begins its process of going through the public comment period of modeling and developing and generating the information necessary to process that permit. I don't want to stop at each of the milestones, but just to indicate that we are now in 1978 and the lines are still going; there is no decision that has been reached. Finally, I think somewhere in '78, the end of '78, PSD permit was issued but it was subsequently nullified by changes in the Clean Air Act and the fact that the permit could not become operative within those changes. We move into 1979, again supplements to the environmental impact statement have to be prepared. The process of reviewing the decision in the Washington Office following procedures are at hand and it is not until 1980 that the decisions are finally issued. First, Secretary of the Army issuing a decision in December of '79, issuing the permit, and then EPA issuing the final PSD permit in 1980. Nowhere along that entire schedule did you see any type of effort to pull all those lines together to, in effect, consolidate the Federal and State reviews so that the applicant was dealing with a Federal government rather than pieces of the Federal government. And I suppose that's what has frustrated the industry more than anything else in terms of the issue at hand.

Now when the President proposed the energy mobilization board we feel that he specifically had reference to that refinery and indeed if you read any articles in the news media on it, the proponents of that refinery are cited as the example for the need for an energy mobilization board. In making that proposal, and I have extracted a quote from the President's message there, he has indicated that, "We will protect our environment but when this nation critically

WHY AN EMB?

PRIVATE INDUSTRY HAS EXPERIENCED
- DELAYS AND
- INCONSISTENCIES

RESULTING IN HIGHER COSTS.

THE FEDERAL DECISION PROCESSES NEED TO BE:
- STREAMLINED AND
- COORDINATED

''POINT FIVE, TO MAKE ABSOLUTELY CERTAIN THAT NOTHING STANDS IN THE WAY OF ACHIEVING THESE GOALS, I WILL URGE CONGRESS TO CREATE AN ENERGY MOBILIZATION BOARD WHICH, LIKE THE WAR PRODUCTION BOARD IN WORLD WAR II, WILL HAVE THE RESPONSIBILITY AND AUTHORITY TO CUT THROUGH THE RED TAPE, THE DELAYS AND THE ENDLESS ROADBLOCKS TO COMPLETING KEY ENERGY PROJECTS. WE WILL PROTECT OUR ENVIRONMENT, BUT WHEN THIS NATION CRITICALLY NEEDS A REFINERY OR A PIPELINE-WE WILL BUILD IT''.

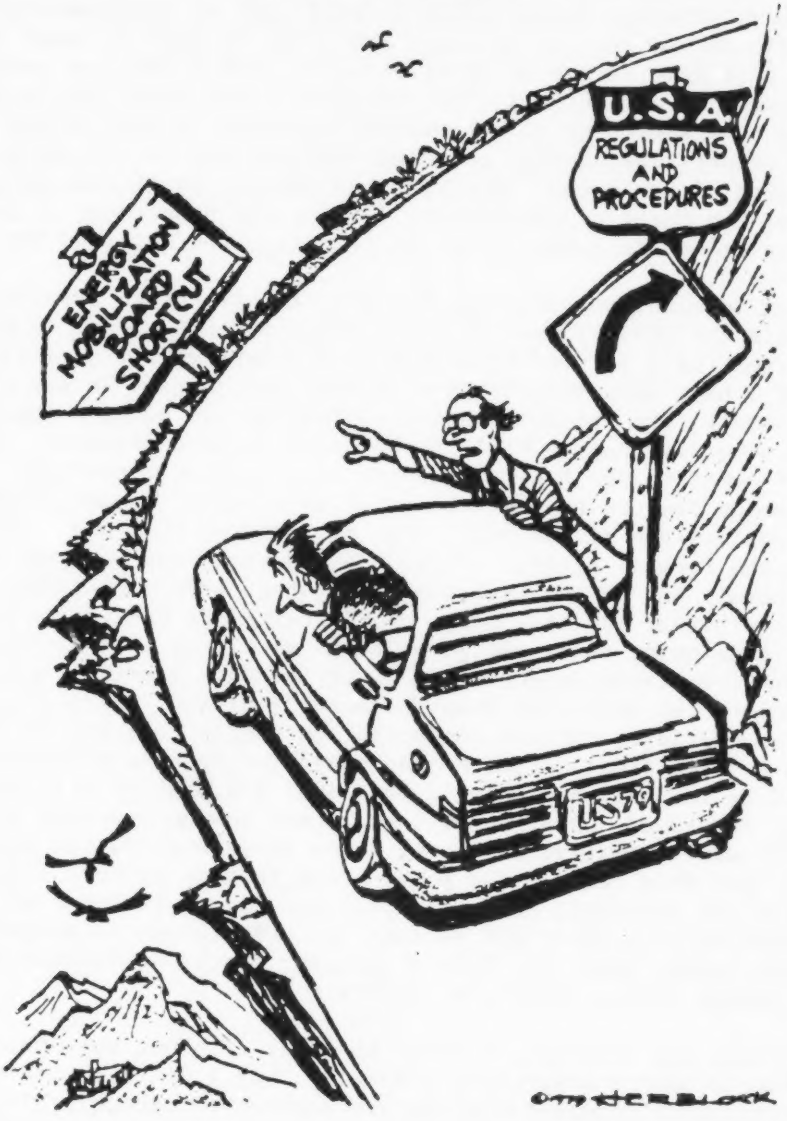
(PRESIDENT JIMMY CARTER, JULY 15, 1979)

needs a refinery or pipeline we will build it." So there is an effort within that message, we believe, to factor in both energy needs and environmental protection as co-equals, if you will, requiring equal type of consideration in reaching a decision. Now the energy mobilization board, before I go into details, was proposed by the administration about a year ago and immediately Herb Block, one of the political cartoonists, began to suggest that it had some definite problems. However, I thought I would reveal to you, if you haven't had a chance to look at it, some of the features of the energy mobilization board as they have been agreed to by the House of Senate conferees.

At the moment, the legislation is still being pledged in and developed by staff but there is essential agreement to the proposal. Once the energy mobilization board becomes a law or becomes part of a law, there will be a period of time in which they will have to develop and promulgate regulations that will lay out the ground rules to be followed. That will take obviously several months, but efforts are already underway within the administration to at least begin to develop a framework of this regulation. When the EMB comes into place, the project sponsors would be required to meet minimum criteria and if they meet the criteria they could apply to have their project designated as a priority energy project that will be called a PEP as you get into this type of issue. To limit the number of applications that the EMB may have, there will be a burden placed on the applicant to demonstrate that his proposal is one dealing with a number of complex problems capable of triggering delay, and, also that he has to identify the permit or permits from the Federal government that will be required. Once a project is designated as a PEP the energy mobilization board determines the time schedule and that time schedule will probably amount to about 12 months. The Council on Environmental Quality, prior to that time, will have the authority to designate the lead agency to do an environmental impact statement for the project and also to designate the time frame in which the EIS has to be done. There is a grandfather clause within the legislation that would exempt the project from any laws or regulations that come into being after the project commences construction or after permits have been applied for. And finally, there is the provision for judicial review in which litigation concerning the boards' activities would be heard by a temporary court of appeals under strict deadlines to make decisions. That is a feature that most within the energy area believe to be one of the paramount features of the entire proposal.

Now it has fallen upon EPA, on somewhat of the eve of the EMB, to come up with various strategies to deal with energy projects, and we are in the process of developing those strategies in different areas. First, one dealing with alternative fuel sources such as synfuels; a second one dealing with tracking of key permit decisions; and the third one that I'm responsible for, which is using the EIS process to the extent that we can to accelerate the review of energy projects, but at the same time bring about responsible decision making. I don't have to preach to the choir in this room in terms of what NEPA requires all Federal agencies to do, but I'm, in effect, keying in on those requirements, particularly the requirements

"IT'S MUCH FASTER"


ENERGY-MOBILIZATION BOARD SHORTCUT
U.S.A.
REGULATIONS AND PROCEDURES
US 79
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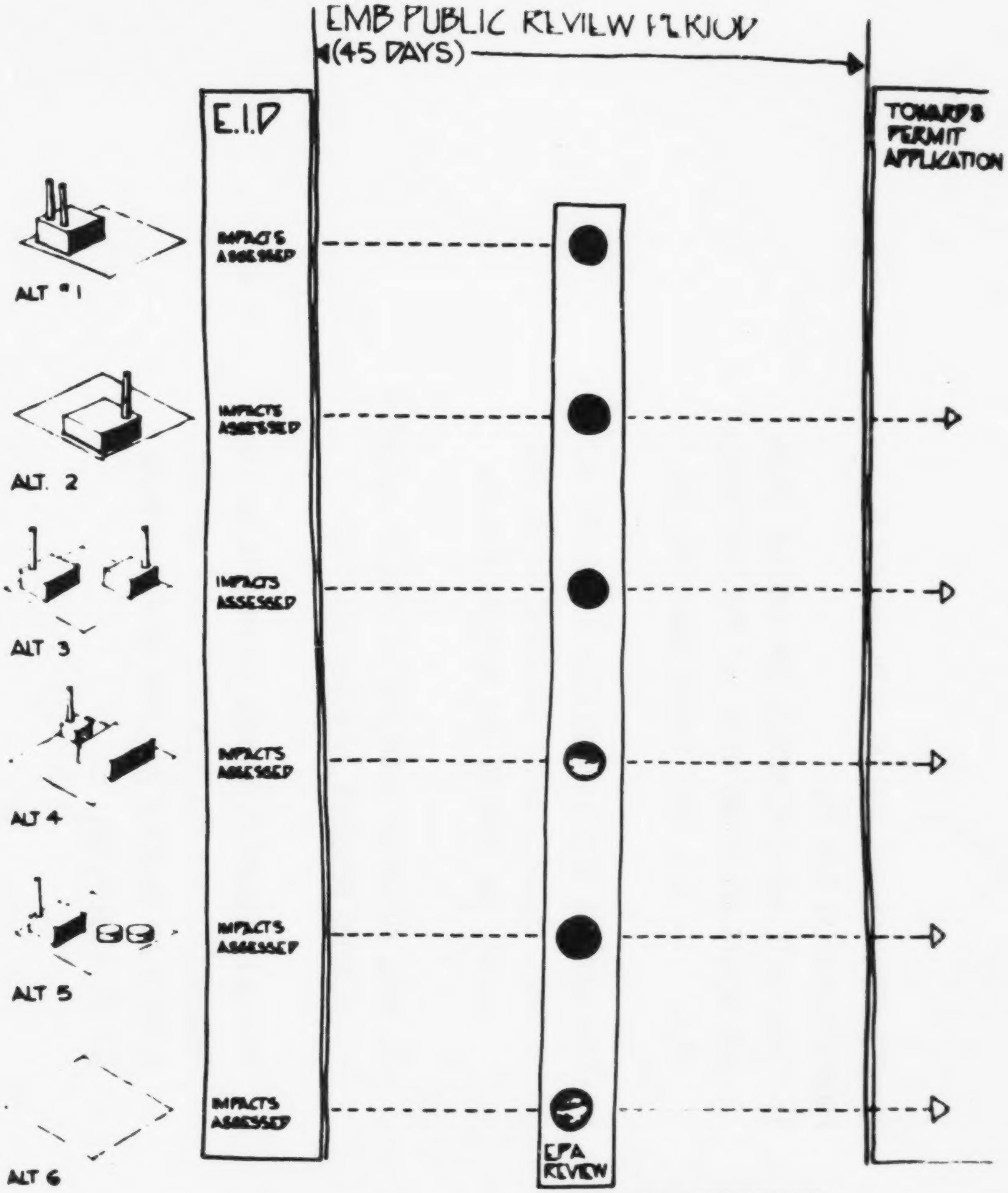
to look at the environmental impacts of the proposal and the alternatives that may be available to that proposal as the mechanism to develop the strategy that I would suggest to the Administrator of EPA to follow with respect to our NEPA responsibilities. It has several assumptions. My first one is that most priority energy projects will need an environmental impact statement. The second one is that they are going to need at least one or more permits from EPA, either an NPDES permit, a PSD permit, an underground injection permit, or a combination of the above. The third one is that all of us in this room are going to be involved in either preparing EIS's for PEPS or as a cooperating agency, reducing parts or all of the sections of the EIS in terms of key areas. And that the Federal permitting programs, be they EPA's, the Corps of Engineer's, FERC's, the Department of Interior's, all have key elements in common that can be integrated into the EIS process.

Now, with that in mind, our strategy has been to attempt to identify common elements within the NEPA process that are also common at least to EPA permitting programs and I believe to a number of other Federal permitting programs that I have been identified with over the years. We see scoping and the conference, the pre-application conference, as being a common element. Scoping relating to NEPA, a pre-application conference, in which the applicant comes to the Federal agency, as a similar mechanism. We see as another common feature the environmental assessment, or environmental document or application if you will, that is prepared by the applicant and submitted to the Federal agency. Third is the technical analysis performed on both the permit and on the environmental impact statement itself by the Federal agency, either EPA, the Corps of Engineers, or FERC. The technical analysis often is going to be the same, be it an EIS or a permit document. We see the draft decision document, at least in EPA's permit program, to be very much akin to the draft EIS that would be developed. Public input, through public hearings, through commenting on public notices, is another common feature. The final decision that would incorporate mitigating conditions would be included not only in the Final EIS, but in the final permit document that is issued. And finally, there are common features in terms of the subsequent administrative review of those decisions and the monitoring and followup that must occur. The point being that it is our, I suppose the skelton of our strategy, to try to pull out common features of regulatory permit programs and the Draft EIS so that all of this can be merged together into one track rather than into 3 or 4 separate tracks as demonstrated by the Hampton Rhodes Energy Company's permit.

I'm not sure that the strategy is going to work. I'm not sure that it is something that is more a dream than a reality, but I do feel that from a private sector side the industries who are looking to pursue projects within our framework are looking for a mechanism in which they can deal with one entity or one process rather than the variety of processes and the variety of schedules associated with those projects as they now exist. So if this strategy can be developed and questioned, my proposal would be to visit and talk with the other Federal agencies within Washington, and to attempt to have EPA's regional offices do the same within their respective areas, to essentially see how we can better integrate and coordinate our respective requirements and decisions into one overall effort.


EMB PUBLIC REVIEW PERIOD
(45 DAYS)
E.I.D
TOWARDS PERMIT APPLICATION
IMPACTS ASSESSED
ALT #1
IMPACTS ASSESSED
ALT. 2
IMPACTS ASSESSED
ALT 3
IMPACTS ASSESSED
ALT 4
IMPACTS ASSESSED
ALT 5
IMPACTS ASSESSED
ALT 6
EPA REVIEW

- POTENTIAL PERMIT PROBLEMS OF ALTERNATIVES IDENTIFIED
- OTHER APPROPRIATE ALTERNATIVES & MITIGATION IDENTIFIED

ANY EPA STRATEGY FOR DEALING WITH EMB WOULD PROBABLY REQUIRE EPA TO:

1) COORDINATE AND SYNCHRONIZE OUR VARIOUS GRANT AND PERMIT DECISIONS WITH OUR REQUIRED REVIEWS (E.G., EIS, 404, SOLE SOURCE AQUIFIER, ETC.);

2) COMPRESS OUR DECISION PERIODS -- THE EMB ACT:
    A) WILL REQUIRE PERMIT DECISIONS TO BE MADE WITHIN ONE YEAR OF THE APPLICATION AND

    B) WILL AUTHORIZE AGENCIES TO SHORTEN DECISION PERIODS REQUIRED BY OTHER STATUTES;

3) INCREASE RESOURCES DEVOTED TO PROCESSING THE PRIORITY ENERGY PROJECTS (PEP'S) -- OMB HAS GRANTED AN INCREASE BUT SOME RE-PROGRAMMING MAY BE NEEDED TOO.

PROPOSED STRATEGY

GOAL: SWIFT AND SOUND DECISIONS ON ALL PEP'S

MEANS: TO EXPEDITE EPA'S ACTIONS, BUILD AN INNOVATIVE INSTITUTIONAL FRAMEWORK ON THE COMMON ELEMENTS IN THE EXISTING PROCESSES:

INTEGRATE EPA'S PERMITS AND NEPA ASSESSMENTS

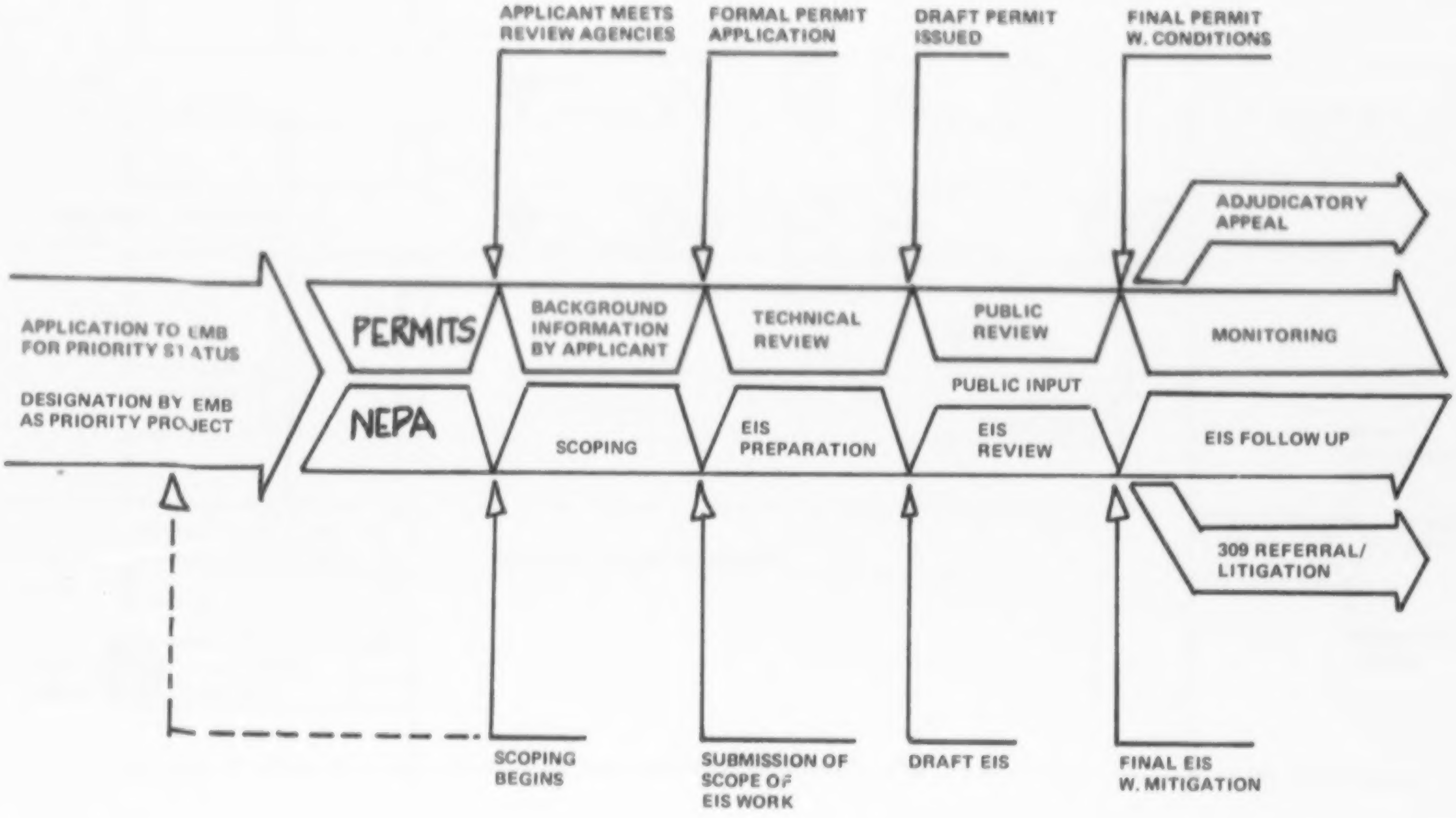
SYNCHRONIZE DECISION POINTS

USE NEPA PROCESS TO COORDINATE WITH THE OTHER ACTION AGENCIES

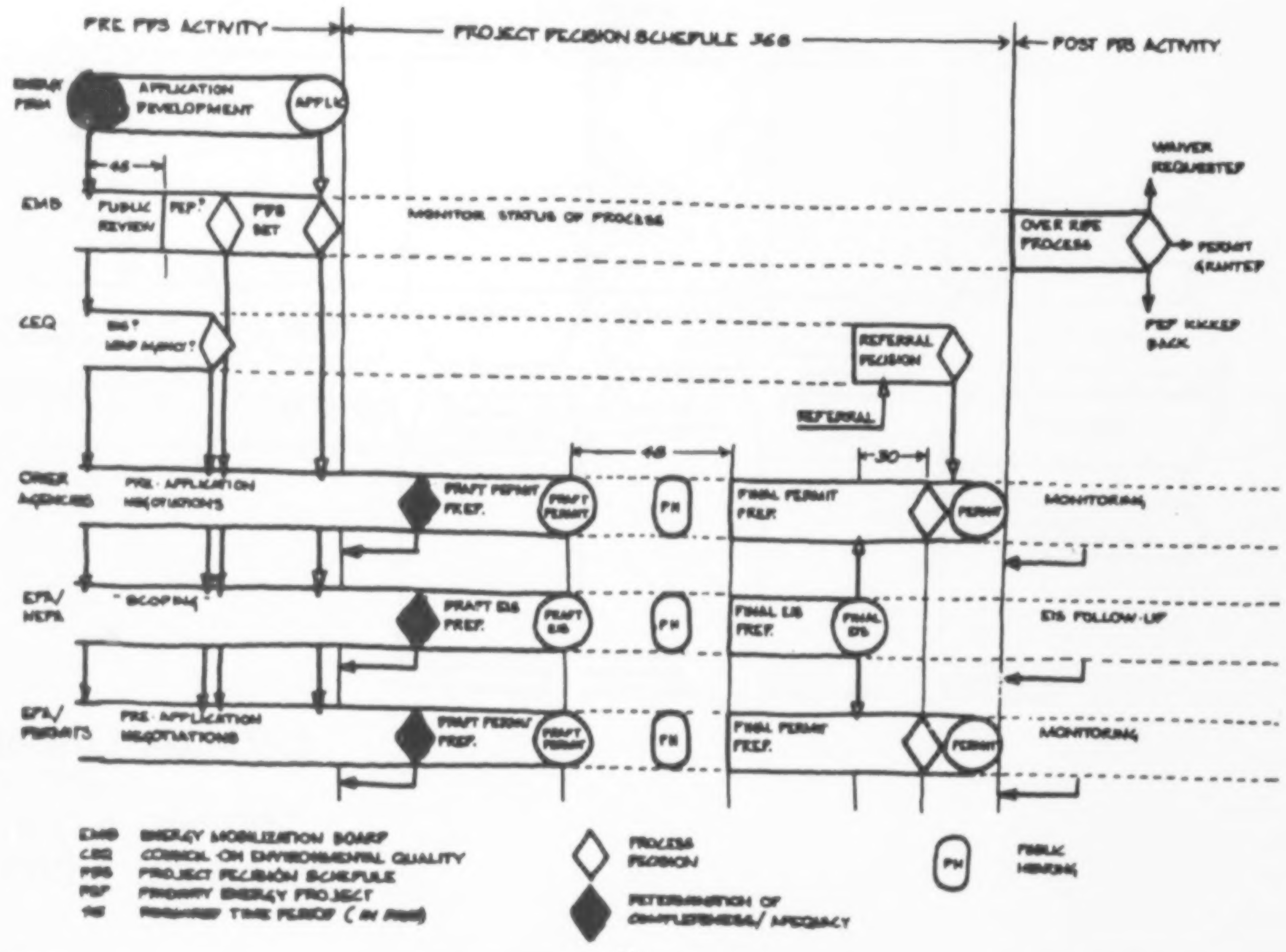
COMMON ELEMENTS IN NEPA AND EPA'S PERMITTING PROCESSES

- SCOPING/PRE-APPLICATION CONFERENCE
- APPLICANT'S ENVIRONMENTAL ASSESSMENT
- EPA TECHNICAL ANALYSIS
- DRAFT DECISION DOCUMENT
- PUBLIC INPUT
- FINAL DECISION (W/MITIGATING CONDITIONS)
- ADMINISTRATIVE REVIEW
- MONITORING AND FOLLOW-UP

DRAFT TIMELINE
FOR EPA HANDLING OF EMB PRIORITY PROJECTS


APPLICANT MEETS REVIEW AGENCIES
FORMAL PERMIT APPLICATION
DRAFT PERMIT ISSUED
FINAL PERMIT W. CONDITIONS
ADJUDICATORY APPEAL
APPLICATION TO EMB FOR PRIORITY STATUS
DESIGNATION BY EMB AS PRIORITY PROJECT
PERMITS
BACKGROUND INFORMATION BY APPLICANT
TECHNICAL REVIEW
PUBLIC REVIEW
MONITORING
PUBLIC INPUT
NEPA
SCOPING
EIS PREPARATION
EIS REVIEW
EIS FOLLOW UP
309 REFERRAL/ LITIGATION
SCOPING BEGINS
SUBMISSION OF SCOPE OF EIS WORK
DRAFT EIS
FINAL EIS W. MITIGATION

ENVIRONMENTAL COORDINATION WITH THE ENERGY MOBILIZATION BOARD



PRE PDS ACTIVITY
PROJECT DECISION SCHEDULE 360
POST PDS ACTIVITY
ENERGY FIRM
APPLICATION DEVELOPMENT
APPLIC
45
EMB
PUBLIC REVIEW
PEP?
PDS SET
MONITOR STATUS OF PROCESS
OVER RIDE PROCESS
WAIVER REQUESTED
PERMIT GRANTED
PEP KICKED BACK
CEQ
EIS? WHO AGENCY?
REFERRAL DECISION
REFERRAL
OTHER AGENCIES
PRE-APPLICATION NEGOTIATIONS
DRAFT PERMIT PREP.
DRAFT PERMIT
45
PH
FINAL PERMIT PREP.
30
PERMIT
MONITORING
EPA/NEPA
"SCOPING"
DRAFT EIS PREP.
DRAFT EIS
PH
FINAL EIS PREP.
FINAL EIS
EIS FOLLOW-UP
EPA/PERMITS
PRE-APPLICATION NEGOTIATIONS
DRAFT PERMIT PREP.
DRAFT PERMIT
PH
FINAL PERMIT PREP.
PERMIT
MONITORING
EMB ENERGY MOBILIZATION BOARD
CEQ COUNCIL ON ENVIRONMENTAL QUALITY
PDS PROJECT DECISION SCHEDULE
PEP PRIORITY ENERGY PROJECT
45 PRESCRIBED TIME PERIOD (IN DAYS)
PROCESS DECISION
DETERMINATION OF COMPLETENESS/ADEQUACY
PH
PUBLIC HEARING

WHAT HAPPENS AT EACH
STEP OF THE COMBINED PROCESSES

- SCOPING WILL IDENTIFY MAJOR PERMIT ISSUES
- APPLICATION WILL EXAMINE ALTERNATIVES
- PERMIT'S ANALYSIS WILL FEED INTO DRAFT EIS
- EIS WILL IDENTIFY CROSS-MEDIA IMPACTS AND DEVELOP MITIGATION MEASURES
- PUBLIC HEARINGS WILL BE CONSOLIDATED
- MONITORING WILL BE STRENGTHENED AND FEEDBACK WILL BE USED FOR ANALYZING OTHER PEP'S

Now, my staff suggested that I end with this note which has this inscription at the end: "As I read this you paint a picture of ugliness, but you remain a man of hope," and that perhaps is where I end with you today. I have a hope, having been personally identified with the regulatory and environmental process for 10 years now, that there is a way to make the system a little less cumbersome and unwieldy and much more responsive to, not only the private sector, but to the Federal and State agencies that have to deal with it. I was at the Department of Energy about a month ago and I found posted on their wall this sign: "They told him the job couldn't be done. He rolled up his sleeves and went to it. He tackled the job that couldn't be done and he couldn't do it." And I'm hoping that I can report to you if I have the pleasure of speaking to you some other time in the future that the sign has been changed.

Thank you very much.

Now I would be able to take a few questions. I don't want to impair on the next speaker, but do you have any?

JOHN HAGAN:

Do we have any questions for Mr. Hedeman?

DAN MOLLER (NRC):

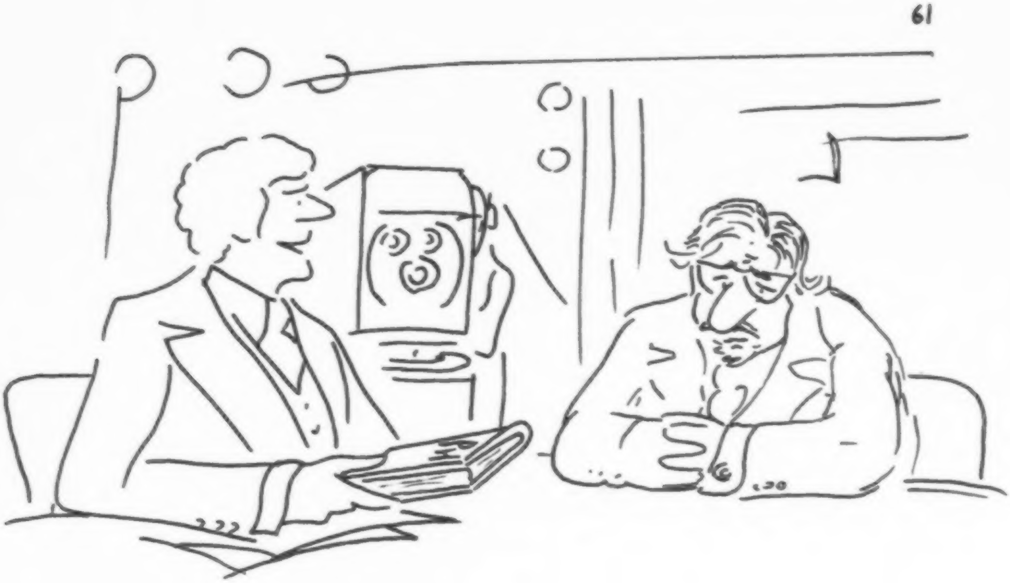
Have you focused on also getting the States involved in this kind of process?

MR. HEDEMAN:

Yes, as was indicated this morning there are about half of the States that have a NEPA process to begin with and in the Hampton Rhodes Energy Company example, one of the three lines going down the track was the State of Virginia's NPDES permit. So, there is an effort, or will be an effort to try to hold the States into this as well. The EMB legislation envisions this coordination.

BILL McGHEE (Mississippi State Highway Department):

In the process of meshing all these things together from the scoping process on through the EIS at the time you're having your scoping meetings and the time you're doing your EIS, you're going through the alternative consideration process and it seems that it's premature in most cases, particularly in our cases, to have all the information available that is necessary for the permit. And this seems to me that it is going to be a tremendous problem of trying to get this in that pipeline together. One is inconsistent with the other because your EIS process goes through considering all your viable alternatives and so on, and you have to go through that process in our regulations before you get down into the design detail, and appraise the information necessary to make a determination.



Bernard Schoenbaum.

"As I read this, you paint a picture of ugliness but you remain a man of hope."

MR. HEDEMAN:

Your point's well taken and at the same time, we are exploring possibilities in which alternatives to the proposal by the applicant can be presented fairly early in the process, even before the energy mobilization board becomes involved, or there is a project decision schedule that comes out of that so that the system with respect to these energy facilities not only can be looking at the proposal that's on the table but also alternatives to it. I agree that your point is well taken and it's something where specific designs and such may preclude some of that from actually occurring.

DON LUCAS (Envirosphere Company):

There are many of us here that are concerned with projects which may be eligible for the energy mobilization board. We've been hearing for, I guess, six months now that the legislation is going to be out any day. Could you shine some light on when do you expect this particular program to be enacted?

MR. HEDEMAN:

We may be talking about enactment before the Fourth of July because the last I heard there was a good deal planned to have a ceremony on the Fourth of July where the President would sign a number of these pieces of legislature declaring our energy independence. The one piece of legislation that was moving slower than the other one was apparently resolved yesterday afternoon; that was the synfuels legislation. The last I had read in the Washington Post is that the leadership within both the House and the Senate do plan to have these now that there is agreement on both the EMB and the synfuels pieces of legislation which were the two major pieces of legislation for the administration. To get them out onto the floor before July 4th, and as I understand it, the proposal is that they would be enacted on the 4th of July.

QUESTION FROM THE AUDIENCE:

In any of your pieces of legislation coming up, is there any process that will review what has taken place in the last 10 years and what should take place and try to unify the process? What I'm speaking of is, FDRC is familiar with a utility down in Florida. About 10 years ago they were burning coal and EPA told them to switch to oil, which they did and passed the cost on to the consumer. Now, DOE is telling them to switch back to coal. It's not really giving us any energy independence because we are using more energy switching back and forth than the plant can produce. Is there anything in that process that will look at this whole chain of events and see where we need to draw the line?

MR. HEDEMAN:

I'm sure there is. I can't specifically comment on what there would be in that area.

JOHN HAGAN :

Thank you very much, Bill. I can't resist the temptation to toot my own horn just a little bit. Within the EIS process here in Region IV, I think we have three initiatives that are underway right now which address the energy program and these three initiatives involve some of you. First of all, we do have an agreement with the Tennessee Valley Authority. Tennessee Valley Authority is a very large producer of electric energy, hydro-electric, nuclear, coal-fired, they are very prominent in the synthetic fuels development process, and Region IV and the TVA have recently negotiated a wide range of cooperative agreements covering our mutual responsibility. And one of those agreements, Bill, relates to the NEPA process and we now have a specific document which relates to how Region IV and TVA will interact as lead and cooperating agencies on energy projects, and I think that is a step in the right direction. In the State of Florida, another step that's coming right along -- the State has a power plant siting act. As far as I'm aware, it's the only State in our eight State region that has a specific piece of legislation regarding power plant siting and we now have a Memorandum of Understanding which is being run through Regional Counsel for final review which will do exactly what you're saying. And that is combine the State EIS process or the State power plant siting act process with our NEPA process, and if everything works as we envision it in the MOU, we will come out with a single document which will take care of both requirements. And finally, a somewhat related activity in Kentucky. We have an extremely large scope, an environmental impact statement going on to identify sensitive natural areas and other environmental impacts, potential environmental impacts, from coal mining. It covers approximately 10,000 square miles of Eastern Kentucky. If you visualize that, that's everything lying east of I-75, which is the eastern mining area and we're very close to having the final product out on that. An interim product has been a very large stack of maps, quad sheets with overlays showing all this information in a graphic form. This of course, will be helpful to us; it'll be helpful to the coal company; it'll be helpful to other State and Federal agencies that have related actions.

So, there are some initiatives going on, Bill, and we don't want to break our arm patting ourselves on the back, but we think that we are certainly moving in the right direction.

I'd now like to introduce to you Mr. Robert Duckworth. He is the Executive Assistant for Urban Policy in the Secretary's Office of the Department of Housing and Urban Development. He works with the Deputy Assistant Secretary, Marshall Kaplan. He is the principal urban policy advisor and he's playing a major role with the President's Community Guidelines. He was also a principal advisor in the development of the administration's urban policy. Mr. Duckworth has an international urban experience as well as field experience with HUD in Community Development and Planning and preparing HUD environmental reviews. Robert, would you come forward, please, and tell us about community conservation guidelines, an area which is new to almost all of us?

THE ADMINISTRATION'S COMMUNITY CONSERVATION GUIDELINES -- A NEW URBAN POLICY INITIATIVE

By ROBERT P. DUCKWORTH
EXECUTIVE ASSISTANT FOR URBAN POLICY
U. S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Good Morning. I want to thank EPA Region IV Office for inviting me to this important EIS Conference in Atlanta to discuss with you the Administration's recent Community Conservation Guidelines. I know given your role with environmental impact reviews, A-95 assessments and urban impact analysis, this latest White House initiative may cause some interest and concern as it relates to each of us. Indeed, this latest initiative could have potential far-reaching implications for Mayors, government officials, developers and retailers as the Federal government gets serious about the nation's urban problems.

My comments today will cover the major nuts and bolts of the guidelines -- the why, what, how and who -- and hopefully give you a better perspective on the community conservation guidelines and the context within which they operate.

I. First, why were the guidelines issued and what's behind them?

Quite simply, the Community Conservation Guidelines are an extension of the President's Urban Policy and rooted to the urban impact procedure called for in the Executive Order 12074 -- an effort to make the Federal government think about the consequences of its actions on cities and communities. The guidelines are a modest but positive response to the Urban Policy commitment to help local governments and the private sector revitalize older communities -- as they relate to the effects of new commercial development on older commercial areas.

Over the past 25 years America has been on the move. In the wake of this suburbanization and regional shifting of people, jobs and economic activity, many of the nation's older urban places -- both large and small -- have been affected. During this period billions of Federal dollars have been spent to maintain, preserve, strengthen and revitalize our troubled urban places. At the same time other Federal actions -- such as Federal highway and housing programs, sewer and water programs and taxing policies -- have unintentionally countervailed -- undermining this help to cities -- pulling people and jobs toward the new development at the urban fringe. With the Urban Policy, the Administration is now attempting to avoid these contradictory actions -- to coordinate its left and right Federal hand -- to help and not hurt existing urban places and their economies -- even as the demographic and economic tide continue to spread outward. This is the essence of the guidelines as well as the Administration's Urban Policy which calls for conserving America's communities.

One of the major assumptions of the Urban Policy is that the overall well-being of our nation's communities is critical to the economic health of our nation. And healthy business districts and commercial centers -- which are sources of jobs, goods and services and tax revenues -- are essential to each community's overall well being. Yet, as mentioned, Federal actions have in many instances contributed to fringe development-- including major commercial developments such as shopping malls -- which have seriously and adversely affected promising local revitalization efforts.

So, the Community Conservation Guidelines emanating from the Urban Policy were drawn to redirect this history and to more effectively and equitably manage scarce Federal resources. In paraphrasing one of the most prestigous private sector groups, the Committee for Economic Development, the creation of Federal sensitivity to local development issues is necessary in all Federal policy actions, and this is what is behind the Community Conservation Guidelines. More specifically, with these guidelines the Federal government plays an investment role. Before we build a highway, a water system or housing we need to know the likely effect of our investment action on the communities involved. We need to know if we are getting the biggest bang for our buck in terms of carrying out the Urban Policy's community conservation objectives. This investment process is what any private sector investor is expected to do to assure sound investment. Only our payoff is the community and its residents.

II. Next question: How were the Guidelines drafted, who was involved and what were the concerns?

Prior to the publishing of the Guidelines, an extensive period of negotiations and consultations took place at the White House. The Urban Policy Office of Housing and Urban Development was given the primary charge to assist the White House in preparing the Guidelines, a process which began in July, 1979. Involved in this effort were local officials, private sector groups representing commercial developers and retail interest, public interest groups, and Federal officials.

On the one hand those in favor of the Guidelines -- e.g., Mayors, City Council members, local officials, the Conference of Mayors -- argued for the importance of Federal review of Federal actions which support new commercial development at the expense of existing commercial areas and cause dire municipal consequences. These advocates in welcoming the emphasis of Federal Urban Policy on "Community Conservation" also recognized that community conservation entailed more. It meant if the Urban Policy is real, its community conservation thrust must avoid Federal actions that undermine the effectiveness of public investments in urban upgrading. In addition, it must mean preventing new deterioration that would place additional local jurisdictions on the list of urban distressed places.

On the other hand, the retail and commercial development interests represented by groups such as the International Council of Shopping Centers, the National Retail Merchants Association and the American Retail Federation were in opposition, urging the White House not to proceed. They initially viewed the Guidelines as unnecessary -- leading to unwarranted expansion of Federal power and interference in local land use decisions and in a very competitive industry. They felt they should not be the scapegoat for the decline of older commercial centers and that the Guidelines were anti-suburban development and anti-shopping mall. Giving strong economic rationale these interests perceived the Guidelines as a potentially costly and inflationary Federal mandate which could mean potentially lengthy reviews and additional bureaucratic loops and hoops.

Thus, as you can see, the preparation of the Guidelines was a very controversial and delicate affair. In this preparatory process we studied the impact of regional commercial centers (shopping malls) and found that indeed, some did have negative impacts on central city business districts while many provided necessary benefits. So to assure the private sector interests that the Guidelines would not be excessive or harmful to them, they were encouraged to join us in hammering out the final guidelines.

Announced by HUD Secretary Moon Landrieu in November, 1979, the White House issued the Guidelines in November 26, 1979, in the form of an instructional memo to each Federal agency rather than a Presidential Executive Order to assure the concerned parties that they would not be a new layer of regulations. The Guidelines were thus built on public-private partnership frame and would be implemented in this same cooperative spirit which is called for in the Urban Policy. It was an important first step since it was the first time any Administration has, in effect, said it would do this type of analysis before the government acts, and tied it to an explicit urban policy.

III. This takes us to the next set of questions: What is the thrust of the Guidelines as finally deliberated, what do they do and who is involved?

Basically, two community conservation thrusts are encompassed in the Guidelines -- what I call the Promotional and the Protective thrusts. On the promotional side, the guidelines, in reiterating the Urban Policy, call on Federal agencies to provide special assistance and take steps to help urban communities striving to revitalize or conserve their commercial areas and central business districts through reinvestment strategies and actions.

The second thrust - the protective or watchdog side of the Guidelines -- aim at protecting those reinvestments in older communities from the threat of newer commercial developments generated by Federal actions. More specifically, this part of the Guidelines direct Federal agencies to prepare brief analyses of the urban or community impacts of their respective actions, if such actions are likely to lead to a large commercial development.

With this, let me focus on what the Guidelines do and don't do and who is involved:

First, the mere release of the Guidelines should encourage better preliminary negotiations between concerned local jurisdictions and developers. All sides should be stimulated to cooperate more before coming to the Federal government for help. Thus, the Guidelines could mean less government interference;

Second, the Guidelines should not mean more paperwork. They are not new statutory or regulatory Federal edicts, but rather White House instructions to Federal agencies -- guiding and asking them to be more serious and sensitive to their actions as they relate to urban consequences. On this point the community impact analysis contained in the Guidelines must be consistent with other urban impact reviews where applicable-- including reviews being performed by Federal agencies under the President's Executive Order on Urban Impact Analysis (E.O. 12074), or the revised NEPA and A-95 regulations which now require urban assessments of Federal action;

Third, the community impact procedures of the Guidelines should not be excessive or time consuming. In fact, 45 days is the time given for Federal agencies to complete community impact assessments once initiated by a local claim. This is to avoid delaying projects and meet the "quick" review approach suggested by the private sector retail and commercial development interests concerned with the length of time to complete EIS, A-95 and local planning reviews;

Fourth, the community impact analysis is only to be initiated at the formal request of a locality's chief elected official. This request-- or claim of adverse impact -- must include good cause on why the request is being made, identification of the specific pending Federal action generating the threatening major commercial development and clear evidence of the threatened locality's commitment to revitalizing its commercial districts. A pending Federal action can include an array of actions from highway expansions, off-ramp construction, sewer and water improvements to wetland permitting actions. At this time it seems that Department of Transportation actions are likely to have the most claims;

Fifth, to assure neutrality, avoid pre-judgements and limit controversy the community impact analysis will be prepared in Washington by the appropriate Federal agency along with Housing and Urban Development assistance. The Department of Housing and Urban Development has been given the lead role in this process -- that is, along with the appropriate Federal agency HUD will determine the validity of a request and provide analytical support to the Federal agency whose actions are being questioned and report the progress of reviews to the White House. In this process regional or field staff would be contacted to provide advice and council or background information both in determining if a request for review is warranted and in preparing the community impact analysis review itself.

Sixth, once a community impact analysis review is completed, the guidelines call for negotiations. Essentially, this means if a locality's request or claim of adverse impact due to a new commercial development generated by Federal action is sustained or upheld, then mitigating options must be suggested -- or else the Federal support could be denied in part or whole. Mitigating options might include scaling down a commercial development, phasing its construction, finding a new site, or the sharing of tax revenues as a result of the new development.

Seventh, the community impact analysis review is not to be an excessive undertaking but a "decision-making" effort which should examine the following questions:

1. Is the Federal action and its related commercial development consistent with or contrary to State, local and areawide plans?

2. Will the threatening commercial development shift the locus of business away from places where it now occurs or will the new facility strengthen the retail sector in the area's economy (jobs, tax revenues, volume of business, etc.) Related to this question is what is the strength of the regional market or trade area? If an area is growing, additional retail may be necessary, but if it is not, then adverse consequences for existing commercial areas could materialize. Other factors such as market penetration and merchandising quality and location must also be addressed here.

3. Will the Federal action and its related commercial development impede the local revitalization efforts of the locality making the request for Federal review? Or, if the Federal action and related commercial development does not occur, will these local revitalization efforts be strengthened? With this question it is also important to ask whether an existing center's situation can or cannot be remedied -- what are the likely trends?

4. What significant environmental, energy-use and housing impacts can be expected to result with the pending Federal actions and its related major commercial development? Will the spatial balance of an area be upset, i.e., will the growth patterns be altered?

5. Are there available opportunities for mitigating negative impacts? Can the Federal action be easily changed and can the commercial development be modified?

Eighth, the Guidelines are not anti-shopping mall or suburban development. Rather, this initiative recognizes that major commercial developments have well served the needs of growing areas and are necessary. In fact, the Guidelines never mention shopping centers but uses the term, "major commercial development." Thus, the Guidelines do not aim at proscribing regional shopping centers. They are aimed at assuring that Federal actions do not inadvertently harm older business areas and/or generate inequitable and inefficient distribution of jobs, taxes and shopping facilities -- or, are adverse to urban minorities who might lose their jobs as older commercial areas are made non-competitive and shut down.

IV. This brings us to the last set of questions on the Guidelines, that is, what has the progress been on the Guidelines since their unveiling almost six months ago and what does the future hold?

While the potential effect of the Guidelines are recognized, their actual importance is just beginning to be demonstrated. As of this week, "test case" community impact analyses have been scheduled on claims from eleven local jurisdictions including Duluth, Minnesota; New Haven and New London, Connecticut; Indio and Santa Maria, California; West New York, New Jersey; Clarksburg, West Virginia; Asheville, North Carolina; Appleton, Wisconsin; Butler, Pennsylvania, and Hollywood, Florida. Almost twenty-five claims or requests have been received to date with six of these denied.

From the community impact reviews already underway it is clear that the types of Federal actions vary as to the types of communities and major commercial developments involved. Thus, the kinds and degree of adverse impacts which might arise as well as options to mitigate them will greatly vary. In any case all the reviews are delicate and must be treated without pre-judgment as to benefits or cost. In each of these reviews, Housing and Urban Development and other Federal agencies have been working in close coordination. Also, we have been working with each locality and developer involved to assure that the reviews are fair and honest assessments.

During this first year of the Guidelines, outside consultants -- with both public and private experience -- have been retained to help with the analysis. In light of an expected 50 Federal reviews which might be generated by the Guidelines by the end of the year -- affecting many Federal departments and agencies-- this outside support is crucial. It is also necessary given the fact that the first year for the Guidelines is and will be a "shakedown cruise" in the words of White House staff. Complete responsibility for the analyses will probably begin next year and the results of the first test cases will be critical in determining which way we go.

Furthermore, what the future holds for the Guidelines depends on how helpful local officials think the new Guidelines will be when actually put into operation. Already, there is discussion underway to expand the Guidelines to include other kinds of development such as office and industrial parks as well as retail centers.

V. Let me close these remarks on this note. The Guidelines obviously will not guarantee that existing commercial areas and central business districts will remain intact or be revitalized. But, in concert with other administration urban policy efforts to build public and private partnerships aimed at helping strengthen economics of existing urban areas, the Guidelines can be very useful. Also, because the Guidelines are aimed in part at improving State and local planning efforts, they should assure a better, more balanced and efficient mix of metropolitan land uses.

Thank you for your kind patience to these remarks and I wish you great success in this Conference.

WORKSHOP I

EIS REVIEW PROCEDURES

Gerald Miller and Ted Bisterfeld

This question and answer workshop focused on the mechanics of Environmental Impact Statement (EIS) Review, significant facilities currently under review, topical/administrative issues arising from Section 309 Review comments, and how each of the previous matters have been influenced by the recent Council on Environmental Quality (CEQ) Regulations. While there was little evidence of concensus during the workshop discussions, they were enlightening because they so vividly pointed out the pluralistic attitudes of the various Federal agencies.

The first item of discussion was a follow-up on Ms. Hanmer's (EPA Regional Administrator) presentation, i.e., the notion that an EIS should be an action forcing/decision-making document. This position is certainly central to CEQ Regulations (see Section 1501.1). Nevertheless, a number of agencies have developed implementing regulations which diminish this aim. EPA Region IV maintains that no matter how many elements are involved in decision-making, the EIS is sufficiently flexible to serve in an umbrella fashion.

This viewpoint was countered by representatives from several agencies who voiced the opinion that an EIS was a discrete document and just one of many items considered in the public interest review. It is important to note that Section 1506.4 (CEQ Regulations) indicates documents can be combined to reduce delay and paper work. These are reasonable goals, yet some agencies continue to utilize an incremental method with all the attendant duplication for their decision-making. Nothing definitive was decided regarding the merits of unified versus gradual decision-making, but it was worthwhile as it showed how different members of the Federal community can read the same material and arrive at divergent conclusions. Unfortunately, it also evidenced how these same agencies can work at cross purposes.

CEQ Regulations (Section 1502.6) urge that EIS preparation involve an interdisciplinary approach. Most agencies have appreciated the merits of this requirement and have carried it out accordingly. However, just as important is an interdisciplinary review and this is being done somewhat less often.

NEPA invokes three main considerations, viz., environmental, economic, and societal. EPA feels competent to comment on the first factor, but less so in the latter two. Due to their importance in gaining an overall perspective, EPA has offered some comment in these areas, but only as they immediately relate to environmental consequences. In this regard we feel strongly that those agencies mandated to address economic and societal issues should comprehensively review environmental documents. For NEPA to work effectively, there must be a balance of all a proposed facility's impacts. We are particularly concerned that those projects in urban locales receive the same close examination as those in natural ecosystems.

CEQ Regulations (Section 1502.9) list the circumstances under which an EIS will be supplemented. Since many projects undergo a long evolution, the final product may bear little resemblance to that discussed in the original statement. Therefore, the argument that an EIS has already been prepared, so why is a Supplement necessary, is not a very compelling argument for failing to meet this requirement. EPA holds the position that the EIS is not just a pro forma hurdle, but an important public information document. Quite simply, if the stipulations of Section 1502.9 are met, a Supplement should be prepared. When there are relevant and/or exceptional reasons why this should not be done, a meeting to establish consensus among the involved regulatory agencies is a possible avenue of resolution.

Section 1502.14 indicates that EIS's will include the alternative of "no action." This is a fundamental requirement and cannot be eliminated by objective. That is, to indicate that the "objective" of a project is to accomplish something; therefore, anything which detracts from this objective is peremptorily discounted. This is presumptive and, in our opinion, shows a basic lack of understanding of the NEPA process. The "no action" alternative should initially be considered/examined with the same degree of concern as the other choices.

CEQ's Part 1503 discusses the role and responsibilities of commenting on EIS's. Because EPA feels very strongly about this role, it has difficulty when one of its comments is addressed simply as "noted". The comment was made to elicit a substantive response, not merely as a fruitless exercise. Similarly, for a lead agency to contend that an action falls outside of its immediate purview; therefore, it will have to be addressed later or by others, is a weak argument. If approval of a permit application is necessary for facility implementation, the lead agency should assure that it has been accomplished prior to FEIS submission.

EPA's rating system for EIS's is always an issue of inquiry. This rating is based on the environmental impact of the project, per se, as well as its content/administrative adequacy. The various rating categories follow:

ENVIRONMENTAL IMPACT OF THE ACTION

LO- Lack of Objection

EPA has no objection to the proposed action as described in the draft impact statement or suggests only minor changes in the proposed action.

ER- Environmental Reservations

EPA has reservations concerning the environmental effects of certain aspects of the proposed action. EPA believes that further study of suggested alternatives or modifications is required and has asked the originating Federal agency to reassess these impacts.

EU- Environmentally Unsatisfactory

EPA believes that the proposed action is unsatisfactory because of its potentially harmful effect on the environment. Furthermore, the Agency believes that the potential safeguards which might be utilized may not adequately protect the environment from hazards arising from this action. The Agency recommends that alternatives to the action be analyzed further (including the possibility of no action at all).

ADEQUACY OF THE IMPACT STATEMENT

Category 1 - Adequate

The draft impact statement adequately sets forth the environmental impact of the proposed project or action as well as alternatives reasonably available to the project or action.

Category 2 - Insufficient Information

EPA believes that the draft impact statement does not contain sufficient information to assess fully the environmental impact of the proposed project or action. However, from the information submitted, the Agency is able to make a preliminary determination of the impact on the environment. EPA has requested that the originator provide the information that was not included in the draft statement.

Category 3 - Inadequate

EPA believes that the draft impact statement does not adequately assess the environmental impact of the proposed project or action, or that the statement inadequately analyzes reasonable available alternatives. The Agency has requested more information and analysis concerning the potential environmental hazards and has asked that substantial revision be made to the impact statement.

In order for our responses to meet the requisite time frame, a total of 10 copies of the Report should be forwarded, viz., 5 copies to EPA Washington and 5 copies to the Regional Office in which the project is located. This may appear to be a rather large number; however, it allows for a more timely response by circulating the document simultaneously through the various technical support branches.

WORKSHOP II

URBAN IMPACT ANALYSIS

Robert P. Duckworth

I. Background and Purpose

Workshop Two was moderated by Robert P. Duckworth, Executive Assistant for Urban Policy in HUD's CPD Headquarters Office. He was assisted by an intergovernmental panel of Federal state and regional officials who served as workshop facilitators. The panel included:

June L. Noel, Florida Office of Planning and Budgeting
Beverly Rhea, Atlanta Regional Planning Commission
Ira Iverson, HUD Region IV
Ben Smith, Tennessee DOT
John Cole, EDA, Atlanta Region
Robert Roth, EPA, Atlanta Region IV
Eugene Merriday, SBA, Atlanta Region
Ard Eulenfeld, Corps of Engineers

The Workshop Two audience was asked to participate in a community impact case study exercise which included five working questions (see III below). The moderator through the facilitators steered the participants (who were assembled in roundtable discussion groups). Each workshop session opened on a general presentation of the guidelines and its community impact proceeding and closed with a reporting back from the participant groups. Four workshop sessions were held, the outcome of which was different in each workshop setting.

The aims of the workshop as conducted in this fashion were to:

- Generally discuss the White House Community Conservation Guidelines announced on November 26, 1979 and the role of Federal agencies, local jurisdictions and commercial developer interests.
- Familarize participants with the community impact review process as identified in the Community Conservation Guidelines.
- Receive commentary, observations and recommendations from regional and field personnel and clients regarding the guidelines and their procedures, and
- Compare the community impact review process with the environmental review process to observe similarities and dissimilarities

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II. Workshop Outcome

Each roundtable discussion group in addressing the case study exercise agreed that a community impact analysis request was warranted by the Carob Mayor. The rational for making the request as presented by each group tended to be the same and in conformity with the guidelines. For example, Carob was making a serious effort (using UDAG and other public funds) to revitalize its downtown commercial area, yet its efforts were under serious threat of failure due to the proposed Haagen Daz Mall.

The workshop groups also identified a thorough range of possible adverse impacts although emphasis of impacts tended to be different in each group discussion. In addition it was agreed that the intensity and shape of impacts from the Haagen Daz Mall would differ if the Carbob SMSA were larger or if Carob were a small city or town. Possible adverse impacts cited included:

- The undermining of Federal resources to revitalize Carpb.
- Severe fiscal consequence for a distressed central city, i.e, loss of sales and property tax revenues and thereby loss of Carob's capacity to provide public services, especially for its low income residents.
- Economic hardships in which established businesses would be further threatened by regional mall activity, loss of jobs, loss of minority entrepreneurial opportunities in Carob and undue travel burdens on Carob minorities whose jobs would be relocated out from Carob.
- Continued neighborhood deterioration in areas adjacent to Carob's business district.
- Possible adverse economic (retailing) impacts on the existing regional malls as well as other existing commercial areas in the Carob SMSA.
- Inefficient use of public funds in which more public funds would be needed to provide infrastructure to the Haagen Daz suburban mall than to the Carob downtown mall.
- Potential loss of wetlands because of the Haagen Daz mall construction, which could contribute to loss of a possible wild life refuge or natural and recreational area or to increase flooding hazards for downstream communities such as Carob.
- Unleased suburban growth and dramatically changed suburban development patterns beyond the Haagen Daz community possibly induced by the new regional mall.

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The workshop groups also were creative in discussing an array of options to mitigate the adverse actions. It was clearly understood that merely stopping the pending Federal actions might be too severe unless other alternative steps where not possible. Thoughtful examples of mitigating measures included the following:

- o Negotiate between developers of the downtown mall and the suburban mall to assure that the types of stores in the respective malls are not in competition.
- o Orchestrate the pending Federal actions to scale down the Haagen Daz Mall. For example allow EPA action to improve the wastewater treatment facility needed by each community, but the improvement would only accommodate the needs of a 300,000 square foot mall. Or, to leverage the reduction of the size of the suburban mall the Corps of Engineers could refuse to issue a Section 404 permit. Or, the highway agency could help persuade the suburban mall developer to cut down on the size of that development by taking the position that the developer would have to pay for a large interchange, but that they could pay for scaled-down improvements.
- o The Carob downtown mall may be too ambitious in light of the increase in suburban population and stable Carob population. Therefore cut down the size of the downtown mall to assure economic viability.

III. The Carob Case Study

A. Community Impact Situation. The city of Carob, a medium sized economically distressed central city (population 75,000), is located in a slow growing SMSA of 250,000 people. The city whose population has been stable since 1970, has applied for HUD/UDAG funds to help revitalize its central business district along with other Federal funds. Carob has a 35 percent minority population. Since 1972 three new regional malls have been built in the surrounding suburban areas drawing patronage from Carob's commercial district. Carob has initiated the construction of a 500,000 square foot enclosed downtown mall, for which the UDAG funds will be used.

In the nearby community of Haagen Daz (one mile from Carob and in the suburbs) a national developer is proposing a 500,000 square foot mall on a site partially situated on a wetland area. To build the mall will require major expansion of an interchange at an existing state highway (which connects Haagen Daz to Carob) which crosses an Interstate beltway. Also, it would require permission from the Corps of Engineers to allow the in-filling of the site and an expansion and upgrading of the existing wastewater treatment plant now serving Carob and Haagen Daz. The expanded wastewater treatment plant is necessary to accommodate the new residential growth occuring beyond Haagen Daz as well as better serve Carob.

The problem is: only one additional 500,000 square foot mall can now be accommodated by the Carob SMSA given its current population growth and stable income and the three malls already serving the SMSA trade area as well as the existing central business district of Carob (which has been losing business, jobs and tax revenues because of the existing malls).

B. Working Questions

- Should the Carob Mayor seek a community impact analysis review?
- If so, on what basis?
- What types of adverse impacts might be uncovered in the analysis?
- What kinds of mitigating action might take place among the Federal agencies? Between Carob and Haagen Daz and with the developer of the new suburban mall?
- Would this situation change in a larger growing SMSA and if so how ? Or, would it change in a small town situation? If so why?

WORKSHOP III

SCOPING

Barbara Bramble

I. Panel Discussion

A. **Barbara J. Bramble** CEQ

Scoping Study

The Council on Environmental Quality is embarking on an investigation of the effectiveness of the new requirement in our regulations for an early and open process to determine the scope of EISs. We have some preliminary results to share with you at this time, but the final report will not be ready until September.

Introduction

The study is being performed by Clark-McGlennon Associates (CMA) of Boston, using a survey form developed by CMA, CEQ and a steering committee of NEPA liaisons from eight agencies. Approximately 100 Federal EIS preparers and reviewers in Washington and the field who are familiar with scoping received the survey form and about half have returned it so far. After telephone follow-up, the contractor will attend some scoping sessions and speak to federal, state, local government and public participants.

We are looking for useful and innovative ways to implement scoping and pitfalls to avoid; we also asked for an assessment of how scoping affects the EIS process itself in terms of time and money spent and producing a better product.

If conclusions can be drawn from this study we plan to prepare advice or guidance to agencies on conducting scoping.

Overall Results of the Survey So Far

1. Objectives of Scoping -
Most respondents cited "focusing EIS on important impacts and alternatives" as principal objective. Most rated it successful here.

But two objectives close in importance, - "identifying and involving other agencies and affected parties" and "minimizing chance of conflict later in the process," are not being met. Many agencies are not becoming involved early and neither agencies nor the public seem willing to forego their traditional positions later in the process; so important comments are still surfacing after the DEIS is prepared.

2. Techniques for Implementing Scoping

Most agencies use meetings with agencies, public meetings and invitations to specific interested groups or agencies to submit written comments. Some hold special meetings of experts and cooperating agencies before the public meeting so that they know a fair amount about the issues before talking to the public.

Most agree that public participation is a desirable goal, but do not have solutions to problems such as poor attendance, perceptions that the agency is dedicated to development projects, or occasional disruptive behavior.

These respondents found that interagency meetings usually lead to more useful conclusions than public meetings.

3. Informing Participants

Most agencies use direct mass mailings of information, continuous media campaigns, personal letters to potentially affected parties, announcements at other meetings where interested local contacts might attend, workshops or informal calls.

The information sent out is usually tailored to the public meetings: an agenda of the meeting, with DEIS outline attached; or issue papers and proposed EIS scope of work. Some agencies stated that good graphic illustrations of the site area and/or proposal, an interagency meeting before the public meeting to put together a list of impacts and alternatives, or even a second set of scoping meetings all helped. The implication is that a better informed public can make more useful comments and suggestions.

4. Scoping Decisions

Most agencies attempt to reach agreement on the impacts and alternatives to be examined. But many find it impossible to reach agreement at this stage, especially on eliminating issues. Most at least try to decide during scoping which issues to deemphasize.

In our survey, many respondents seem to confuse consensus on issues with consensus on the proposal or selection of an alternative. (Obviously they are discouraged to find the latter is usually impossible at this early stage.)

Criteria for measuring significance of issues vary widely. Some use degree of public controversy, as well as general concepts such as "unavoidable adverse or beneficial impacts", "biological feasibility," etc. A few use specific criteria such as violations of pollutant standards or acres of land affected.

5. Results of Using Scoping Process

Scoping apparently succeeds at focusing the EIS for decision making. Half of respondents said it helps make the EIS shorter. Half said it saves time, and half that it adds time to the EIS process as a whole.

(More time is needed for notices and meetings but less substantial comments need work after the DEIS.)

Many said it increased the EIS budget, especially due to travel costs. Others said there was no effect or it was too early to tell.

Positive results:
- identification of relevant alternatives
- publication of more analytical and better EISs
- early commencement of planning programs
- reduction of public impression of prior decision
- resolution of major issues before DEIS
- fewer extensions of time requests for comments
- involvement of affected parties and avoidance of litigation

Negative results:
- failure to guarantee early participation by affected parties
- failure of cooperating agencies to participate
- extra buraucratic step for those with other public participation avenues
- expenditure for advertising, etc., with no assurance of attendance
- unprepared public officials
- uninformed citizens
- inability to recognize the significance of some issues due to low level of analysis at scoping stage

6. Cooperating Agencies

A few agencies answered the survey on the basis of experience as a cooperating agency. They reported the following problems:
- advance information too sketchy or too late for informed participation
- lack of resources to respond to requests to cooperate and/or go to scoping meetings
- disagreements with lead agency over what cooperators need in the EIS or what the EIS should include.

They suggest:
- a priority list of scoping meetings from lead agencies
- early notice and better interagency communication
- availability of preliminary documents
- pre-public meeting conferences or small working groups

Desired Assistance of CEQ Staff

Agencies would like descriptions of methods for holding scoping meetings, and collections of typical problems and solutions. But they do not want mandatory guidelines.

B. Sam H. Calhoun - TVA

TVA'S EXPERIENCE WITH SCOPING

TVA has not finalized its NEPA procedures in compliance with CEQ regulations, but we have begun "scoping" meetings. The idea of public scoping really caught the imagination of TVA management and they have become very interested in making the agency more responsive to the public. Although scoping is a process, I have chosen to discuss TVA's experience with scoping meetings, a discrete part of scoping which is new to TVA. TVA's proposed NEPA procedures call for a scoping committee to decide what scoping sessions and publicity are required. Generally, scoping is a 3-phase process with scoping by the committee first, followed by scoping with other agencies, and finally public scoping.

The scoping process is also being used to better coordinate TVA planning with other agencies. Shep Moore, one of our EPA hosts, and I have worked out an agreement between EPA and TVA to coordinate our respective agency's proposed actions, largely through the EIS scoping process. This agreement, by the way, also includes coordinating proposed actions with other Federal agencies and with State agencies. The agreement is now being reviewed by the Tennessee Valley States and should be finalized soon.

To my way of thinking, the main value of scoping is that it occurs early in the planning process when there is still enough flexibility that a change is possible. It holds the possibility that the agency planning an action can work out a compromise with those opposed to the action. Scoping should occur early enough that new alternatives can be examined without necessarily delaying the proposed action. This is important to TVA because we are an action-oriented agency and must accomplish certain objectives.

To date, TVA has held approximately 16 meetings which were essentially scoping sessions. I did not participate in all these meetings myself, but I sent out a questionnaire to which I received information about 11 scoping meetings. The results of the survey are attached.

From the attached information, I conclude that scoping is a success at TVA because the public is interested, participates, provides useful information, and appreciates the opportunity to be heard. I expect that in the future TVA will develop more expertise in dealing with the public and will try more innovative means to develop public input.

ATTACHMENT

Meeting Format

Hearing	4
Meeting	4
Informal	3

Number Attending

Greater than 100	6
20 to 100	5
Less than 20	0

Importance Of Issues Raised

Important	10
Interesting	1
Superfluous	0

Public Interest At Meeting

Very Active	5
Active	5
Passive	1

Public Reaction to Meeting

Favorable	8
Neutral or Mixed	3
Unfavorable	0

Public Reaction to Proposed Action

Favorable	4
Neutral or Mixed	5
Unfavorable	2

C. Richard E. Bonner - Corps of Engineers

PRESENTATION AT EPA ENVIRONMENTAL
IMPACT STATEMENT CONFERENCE
SCOPING WORKSHOP
ATLANTA, GEORGIA
17 and 18 June 1980
Richard E. Bonner
Corps of Engineers

The Corps of Engineers has been actively involved in what is now called "scoping"for many years. This has been accomplished through public meetings and hearings, workshops, agency coordination, and individual interactions. These activities during early study efforts now comprise our "scoping" efforts.

Corps Regulation 200-2-2 defines "scoping" in the following way:

> Early agency and public participation planned and incorporated into the conduct of all Corps EIS actions will be referred to as "scoping".

As can be seen from this definition, scoping is a continuing action at the early stages of the preparation of environmental impact studies.

The Corps also holds at least one meeting called a scoping meeting for all projects, studies or regulatory functions requiring an EIS. These take several forms and vary in format, numbers and types of participants and meeting locations. The exact type of meeting is and should be tailored to fit the situation and needs of the expected action.

Examples of the diversity and varying size of scoping meetings will be discussed which show possible extremes. Wilmington District was responsible for both of these meetings.

The Brunswick Energy Company applied for a Corps of Engineers Section 404 permit to construct an oil refinery in Wilmington, NC. Since the matter was immediately recognized as being major and controversial requiring an EIA, scoping activities were planned. Scoping is especially important for a project such as this where the possible environmental considerations and aspects are numerous. One must find a way to identify the most important areas of controversy and then place our scarce resources on those problems. Two public meetings were held - one in the local area and one in the state capitol. Good local coverage of the meeting was provided by the press and several hundred people attended. A nominal group process was used to insure that all "publics" had a chance to participate in a nonthreatening atmosphere. The meeting was begun in general session with a short presentation on the proposed refinery. Then, small groups of 8 to 10 met together and a facilitator recorded all concerns on flip charts for each group. Each group then voted on the 10 most important issues for their group. Facilitators reported to the assembly after the small group presentations were over. Time was allowed for formal comments or presentations. A formal scoping report was prepared and circulated after the meeting. A copy of this report is being passed around the room for your inspection. The process had favorable and adverse components.

Pluses:

1. Wide spread public knowledge of the meeting.
2. All publics were given a chance to talk (nominal group process).
3. Informal atmosphere and receptive mood was created by the Corps.
4. There was feed back by publishing the scoping report.

Minus:

1. Lack of training for the facilitators posed a problem on understanding the psychology of nominal group processes and may have impaired the effectiveness of the nominal group process.

2. The possibility for intimidation within the groups existed.

3. Omission of significant concerns due to limit of 10 per group and democratic processes.

The second scoping meeting I would like to discuss was on the Manteo Shallowbag (Bay) project in North Carolina. The scoping effort arose from the need to prepare a supplement to the final EIS. Specifically, the U.S. Department of Interior had a number of concerns from several Interior agencies. The scoping process was needed to determine not only a total list of those concerns from all Interior agencies, but also the relative importance. This was accomplished through a meeting with the various Interior agencies. The proposed project was presented by the Corps of Engineers followed by a general discussion of the issues in question. Following the meeting, the Department of Interior presented their major concerns in a letter to the District Engineer which then aided him in the preparation of the draft supplement to the EIS.

Pluses:

1. A formal and open process was followed which recognized the legitimate needs and concerns of the two agencies.

2. Getting all of the Interior agencies together forces tough priority decisions on their part as to which issues were in fact the most important.

3. The group was small.

4. Only unemotional problems and issues were discussed.

Minus:

1. The general public was not involved.

2. The meeting tended to be adversary or confrontation oriented.

3. Formal follow ups were required.

These examples exemplify the wide diversity which can be found when the scoping program is reviewed. Each must be viewed in light of the problem, the affected area, social and environmental constraints and agency resources.

In summary, scoping is not new and has been required as a part of good planning for many years. However, the new emphasis on scoping by CEQ has resulted in a more positive or sensitive reception of scoping and its relative importance by other agencies and the general public. Each project requires a specific design to meet its individual scoping requirements. Trained professionals in public participation and in understanding the psychology of group processors and the psychology of the various types of meetings between agencies and the general public are essential to the successful scoping process.

To the Corps, the intent of scoping is for early involvement of not only affected and interested organizations but of interested persons to participate in determining the issues to be covered in environmental documents.

This has been a rather "quick look" at the scoping process within the Corps. If you have any questions, I'll try to answer them.

D. Robert B. Howard - EPA

TOUCH ON

1. EPA Scoping Experiences
2. Techniques Used
3. General Comments on Scoping
TALKING TO OURSELVES, FEDERAL, STATE, LOCAL, CONSULTANTS, INDUSTRY

EPA SCOPING

SINCE TAKING THIS POSITION, EPA HAS UNDERTAKEN 28 EIS'S FOR WHICH SCOPING HAS BEEN ACCOMPLISHED. EPA HAS BEEN PERFORMING FORMAL SCOPING FOR BETTER THAN 4 YEARS.

PROJECTS FOR WHICH EIS'S HAVE BEEN PREPARED:

NEW INDUSTRIES

PHOSPHATE MINES AND CHEMICAL PLANTS

COAL MINES AND PREPARATION PLANTS

COAL FIRED POWER PLANTS

CEMENT MANUFACTURING

STEEL BLAST FURNACE

WASTEWATER TREATMENT FACILITIES

BIRMINGHAM, ALABAMA

LOUISVILLE, KENTUCKY

JACKSONVILLE, FLORIDA

HILTON HEAD, SOUTH CAROLINA

ORLANDO, FLORIDA

TAMPA, FLORIDA, TO NAME A FEW

CLEAN LAKES EIS ON LAKE APOPKA

EIS ON THE UPPER OCMULGEE 303 BASIN PLAN.

TECHNIQUES USED

VARIOUS TECHNIQUES HAVE BEEN USED.

1. FEDERAL REGISTER NOTICE'S OF EIS ASKING FOR INPUT.
2. PUBLIC NOTICE'S CIRCULATED ON A MAILING LIST ASKING FOR INPUT.
3. PRESS RELEASES REQUESTING COMMENTS.
4. PUBLIC MEETINGS (BOTH FORMAL AND INFORMAL).
5. MEETINGS WITH FEDERAL, REGIONAL, STATE, AND LOCAL OFFICIALS.
6. MEETINGS WITH SPECIAL INTEREST GROUPS; ENVIRONMENTALISTS, DEVELOPERS, INDUSTRY REPRESENTATIVES.
7. USE OF A REVIEW COMMITTEE TO HELP SCOPE THE PROJECT.
8. MAKING A DRAFT PLAN OF STUDY AVAILABLE FOR PUBLIC COMMENT IN LIBRARIES.
9. PUBLICIZING THE AVAILABILITY OF A HOTLINE.
10. SITE VISITS WITH SPECIAL INTEREST GROUPS.
11. ALLOWING FOR CONTINUING MODIFICATION OF THE SCOPE AS NECESSARY TO RESOLVE MAJOR ISSUES.
12. NOMINAL GROUP TECHNIQUES AT MEETINGS.
13. VIDEOTAPE ON PUBLIC TV AND AT MEETINGS.
14. QUESTIONNAIRES.
15. CIRCULATION OF FACT SHEETS AND MAPS OR PHOTOGRAPHS

HAVE NOT USED YET.

1. TELEPHONE CANVASING
2. HANDBILLS
3. POSTERS
4. BILLBOARDS
5. NEWSPAPER INSERTS
6. FORMAL BRAINSTORMING

GENERAL COMMENTS

I'D LIKE TO MAKE SOME GENERAL COMMENTS ON SCOPING.

1. PROPER SCOPING IS BASICALLY JUST GOOD PLANNING AND COORDINATION FOR A MAJOR PROJECT. IT IDENTIFIES THOSE PERSONS WHO SHOULD BE INVOLVED AND DESIGNS THE STUDY TO RESOLVE THE ISSUES. COORDINATES PERMITTING, NOT JUST PROVIDE THE OPPORTUNITY.
2. NO ONE "TRIED-AND-TRUE" TECHNIQUE. NEED TO DESIGN THE SCOPING PROCESS TO THE NEED.
3. TRYING TO IDENTIFY ISSUES TO ELIMINATE OR DOWNPLAY USUALLY CAUSE THE REVERSE TO OCCUR. IT ELEVATES THAT ISSUE.
4. SCOPING OF AN EIS REALLY ONLY IS IMPORTANT IF THE EIS IS TO BE USED AS THE DECISION-MAKING AND DOCUMENTING PROCESS. THAT IS, UNLESS THE ISSUES AND ALTERNATIVES IDENTIFIED ARE TO BE FULLY CONSIDERED, WHY BOTHER?
5. REGION IV HAS HAD SUCCESS IN THE USE OF VIDEO TAPES. THIS TECHNIQUE CAN BE INEXPENSIVE AND VERY EFFECTIVE. IT SHOULD ONLY BE USED WHERE BROAD BASED PUBLIC PARTICIPATION IS DESIRED.
6. THE MORE INFORMAL THE SCOPING IS, THE BETTER THE INPUT IS LIKELY TO BE. MEETING IN SMALLER GROUPS ALLOWS MORE GIVE AND TAKE AND IS ALMOST ALWAYS MORE PRODUCTIVE. FROM A PUBLIC RELATIONS STANDPOINT, IT CERTAINLY CONVEYS A SENSE OF CARING.

I'VE TOUCHED ON A LOT OF IDEAS. LATER IF YOU HAVE ANY QUESTIONS, I'D BE HAPPY TO ANSWER THEM.

BARBARA

B. Results of Open Discussion in the Four Workshops

The following is a synopsis of the issues and ideas that arose in the workshops.

1. Purpose of Scoping -

- Most of you have been doing it all along in-house. It's the first phase of management to produce an EIS: decide what the issues are. Now this is a public process; that is the principal change.
- Using scoping well will reduce the number of issues raised late in the game, and save having to re-do work or start new studies late.
- Scoping may also induce people who already have knowledge about a site or proposal to tell you about it. It can save research time and money.
- Scoping is a process, not an event or a meeting; it continues through the planning for an EIS, and may involve a series of meetings, phone conversations or written comments from different interested groups.

2. General

- Remain flexible. The scope of the EIS may need to be modified at a later stage, if a new issue surfaces, no matter how thorough the scoping was.
- You cannot eliminate your responsibility as lead agency to assess each significant impact or alternative regardless of whether it shows up during scoping. But anyone who hangs back and fails to raise something which could have been raised early on will have a hard time prevailing in court. So you do have some protection.

3. Meetings

- There is no absolute requirement for a meeting.
- The most productive meetings may be among cooperating agencies and technical people.
- Don't expect cooperating agencies to come to a huge public meeting miles away. It is often a waste of time.
- Have separate meetings, where appropriate, for technical agency people, aroused local government people, project opponents, project proponents, etc. All can speak their minds easily, and may level with you and communicate their concerns rather than grandstanding.
- Try conference calls and written comments to save travel money.

- Be as specific as possible with cooperating agencies - tell them what you want them to contribute: issues and alternatives. Many still do not understand the purpose of scoping.

- Accept the fact that in some cases people just will not come to a meeting; either they are still holding back issues for later, or sometimes they just do not care about the proposed action.

- Tape is cheaper than a stenographer. Cheaper still is having a staff person write suggested impacts and alternatives on large sheets of paper at the front of the room. This is an important technique since it shows people they were heard.

- A huge public meeting can only serve to identify interest groups. Little productive work is to be expected.

- Try breaking the large meetings into small groups, each assigned to return with a list of impacts and alternatives for study and inclusion in the EIS.

- Many problems reported with meetings resulted from the lack of experience of the moderators. Civil Service Commission and others give training courses on meeting facilitation. Specific techniques to keep people on track are taught.

- Remind participants that the only decisions to be made at this stage are on the contents of the EIS. It is a common project that all participants can focus on in a positive way.

4. Significant Impacts and Alternatives

- The lead agency has ultimate responsibility for selecting the issues to be covered in the EIS. It cannot abdicate the role and defer to the public.

- If a certain issue is raised and in your professional judgment you believe it is not significant, explain clearly and briefly why it is not significant. There is no need to devote time and pages in the EIS to it if you can document that it is not relevant to the proposed action.

- Do not list the issues you intend to eliminate. That arouses public fears of coverup. Just deemphasize them by a brief discussion in the EIS of why they are not examined in depth. As long as you show that you looked at them, you can use your judgment as to how deeply to go into the impacts and alternatives that are not identified as significant.

5. Ideas to Try

- a hotline for public comments
- videotape of proposed site, or of whole scoping meeting
- questionnaire to public
- set up a review committee representing all interested groups to oversee the scoping process
- The more informal the scoping process is, the better discussion you get
- Try having the consultant actually run the scoping meeting if the atmosphere needs diffusing. But responsible decisionmakers must be there. There is no substitute for developing a relationship between the decisionmaker and affected parties.

6. Preliminary Results of Our Scoping Study

- Objectives of Scoping - Most respondents cited "focusing the EIS on important impacts and alternatives" as the principal objective. Most rated it successful here. However, two other objectives, "identifying and involving other agencies and affected parties" and "minimizing chance of conflict later in the process" are not being met. Responses indicate that many agencies are not becoming involved early and important comments are still surfacing after the DEIS is prepared.
- Techniques for Implementing Scoping - Most agencies use meetings with agencies, public meetings and invitations to specific interested groups or agencies to submit written comments.
- Informing Participants - Most agencies use direct mass mailings of information, continuous media campaigns, personal letters to potentially affected parties, announcements at other meetings where interested local contacts might attend, workshops or informal calls.
- Scoping Decisions - Most agencies attempt to reach agreement on the impacts and alternatives to be examined. But many find it impossible to reach agreement at this stage, especially on eliminating issues. Most at least try to decide during scoping which issues to deemphasize.
- Results of Using Scoping Process - Half of the respondents said scoping helps make EISs shorter. Half said it saves time, and half that it adds time to the EIS process as a whole. Many said it increased the EIS budget, especially due to travel costs. Others

said there was no effect or it was too early to tell.

- Cooperating Agencies - A few agencies answered the survey on the bases of experience as a cooperating agency. They reported that advance information is often too sketchy or too late for informed participation, there is a lack of resources to respond to requests to cooperate and/or go to scoping meetings and that there are often disagreements with the lead agency over what cooperators need in the EIS or what EISs should conclude. They suggest a priority list of scoping meetings from lead agencies, early notice and better interagency communication, availability of preliminary documents and pre-public meeting conferences or small working groups.

WORKSHOP IV

THE CONSULTANTS VIEWPOINT

E.J. KAZMIERCZAK

VICE PRESIDENT

STOTTLER STAGG & ASSOCIATES, ARCHITECTS, ENGINEERS, PLANNERS, INC.

In any project the consultant is principally concerned with preparing a quality product in a timely manner while staying within the dollar budget alloted to the job. EIS's are extremely complex studies; they are born out of conflict; they involve bringing together (and managing) the expertise of a multidisciplinary team (scientists, engineers, sociologists, technicians, technical and non-technical writer, attorney, economists, etc); and in depth review and approval by numerous "Third party interests" (agencies, industries, clubs, civic action committees, individuals) at the Federal, State and Local levels. Thus, by their very nature, EIS's are extremely difficult if not impossible to complete in a timely manner.

Based on SSA's experience, which includes the preparation of EIS's for Federal, State and local agencies and for various private interests, the principal causes of delay are:

- Failure to determine the nature and extent of the "real" issues during the early scoping processes;
- Failure to segregate the real issues from the peripheral issues early on in the process;
- Failure to drop the peripheral (minor) issues from consideration prior to beginning the alternatives analysis which deletes consideration given to key issues/alternatives and greatly increased the number of alternatives considered;
- Difficulties in scheduling timely review by and inputs from interested third parties (cooperating agencies) because of competing demands on the limited staff and resources available to these groups.

Measures shown to be somewhat effective in reducing time delays and project cost includes:

- Expenditure of significant effort of both time and money on the Scoping process; our experience shows that generally each dollar or hour spent on scoping will save 10 during EIS preparation.
- Early consideration of all points of view in formulating the statement of issues; usually this is best accomplished through holding a series of small, less formal meetings with each of the various interests, rather than having a single large, formal public hearing in which all interested parties participate.
- Intergrating or "piggy backing" the EIS into early project planning, will avoid duplication of effort, and the study of the issues critical to implementation of complex projects can be scheduled for early output using critical path techniques. This would assist in completion of projects in a timely manner and provide better decisions.
- Early interaction between the lead agency and cooperating (third party) agencies to identify key issues and develop methodologies for handling peripheral issues.
- Use of qualified, local personnel familiar with the community, who are considered as unbiased to the project, as a spokesmen.
- Use of mediation as a technique for early resolution of certain issues or as a vehicle to differentiate between vital and non-vital issues.

Other problems, which may cause delays, in the preparation of EIS's:

- Lack of an adequate data base which leads to the production of opinions, rather then the analysis of hard facts;
- Questionable accuracy and realiability of owner supplied information data;
- Litigation during the EIS process.

THOMAS M. RACHFORD
GANNETT FLEMING CORDDRY AND CARPENTER, INC.

I speak from the viewpoint of a consultant involved in the preparation of EIS's and as a consultant on whose projects EIS's are being prepared. I hope this causes me to have empathy with the entire range of organizations and individuals affected by this process.

DIFFERING RULES OF A CONSULTANT

The role of a consultant in the EIS process differs from the normal consultant role. The EIS process tends to put the consultant more in a role of an unbiased fact finder as opposed to the client advisory role usually played by a consultant. A firm hired to perform a geotechnical exploration of a dam site knows that their goal is to find the best site - without regard to the question of whether the dam should be built at all. A firm hired to design a bridge knows that its goal is to design a structure that will transport a certain load between two points.

In the EIS process, the consultant may not even start with the assumption that structuring is needed or is even an appropriate alternative.

Those consultants who have grown with the EIS process now accept that everyone's interests, including their own, are best served by their being "right" in conclusions and recommendations, rather than by focusing a preference toward a particular solution to an environmental problem.

CHANGING RULE OF THE EIS PROCESS

I am tending to see the EIS process, right or wrong, beginning to function as a "relief mechanism" - playing a greater role in allowing planning to proceed to a point where implementation becomes acceptable than in dealing with more basic environmental issues.

In this context, the EIS process serves to correct or redirect a planning effort that perhaps has gone astray - without causing anyone too much embarrassment.

An outside entity (ie.,the consultant) can say things and present information that, however obvious, can't be as readily addressed by the normal planning process.

There are other cases where the EIS serves to bring alternatives in line with policies that have evolved and regulations that have taken force during the original planning process, but which may have been inadequately considered in the plan.

TIMELINESS

The most vexing problem of the EIS process is probably timeliness of completion. Everyone (including the consultant) claims to have an interest in seeing a rapid conclusion to an EIS. But is it really possible to orchestrate the time frame or to even begin to predict the time necessary to resolve issues that lead to an EIS in the first place?

Assuming there are no technical or scientific impasses, I still question whether we overly discount the human factors in the cast of characters involved! Agency decisions are delayed while policy is set; local footdragging occurs pending hopeful results of an election, and so on. Data sources stand on protocol to the n^{th} degree when it is suitable to delay the process.

Beyond these obvious situations, is there not just a human psychology that requires time to become familiar with the results and findings of an EIS before resistance to an unexpected outcome fades away?

What is an optimum pace for an EIS? Should they be performed more quickly or is the pace really less controllable than we would like?

THE CONSULTANT'S PROBLEMS

Lastly, I would like to emphasize that a consultant faces three problems in the management of any project:

- Quality Control
- Budget Management
- Staff Resource Allocation

The consultant's position is best served by a project that starts on schedule (after some advance warning); does not have interruptions that dislocate staff from project assignments; allows adequate time for technical work to be done properly; and finishes below the budget estimate.

Given reasonable circumstances, the client has a right to expect that a consultant will handle these three problems satisfactorily. However, the EIS process has not always afforded reasonable circumstances. Nevertheless, close coordination and project monitoring should provide the learning curve necessary to do better.

This is a subject that could be discussed more during this workshop. I am certain my fellow consultants can elaborate endlessly on this topic. I am also certain that the Agency personnel present can speak to this issue from another perspective.

TOM SIMPSON
DAMES & MOORE

The overall EIS process functions to provide discussion of significant environmental impacts, alternatives to minimize these impacts, and, in summary to aid agencies in making decisions. The environmental consulting industry developed to meet these needs and has evolved with the EIS process. The role of these consultants, in the EIS process, has been to objectively provide information for agency evaluation. This information input has required development of close relationships between these agencies, industries, and all interested parties. As experience with the EIS process increased, by both federal agencies and consulting firms, efficiency in dealing with the EIS process increased - but the environmental movement and requirements to be met also increased. Regulations affecting consideration of air quality, threatened or endangered species, and urban impacts were only a few of the increased requirements of this EIS process. In addition, there was a mood of "comprehensiveness" with EIS's conducted through most of the 1970's, with draft reports consuming enormous amounts of shelf space for their recipients.

Recent modifications in the EIS requirements have generally reduced some of the redundancy and the paper work - such as procedures for "piggyback" and "third party" EIS's and CEQ regulations restricting EIS studies to key issues. Preparing brief environmental studies for use in decisions as to whether an EIS might be required, are generally prepared in EIS format to reduce the effort required if an extended study and EIS are to be submitted. These procedures have added perspective to the EIS process by focusing attention on the scoping phase of this process where important issues are defined. If conducted properly, this scoping process has:

- Identified and evaluated (ranked) all issues.
- Provided an appendix for public review that assures no issue has been overlooked.
- Isolated important issues for subsequent study.

These changes in approach to the EIS process have worked with varying degrees of success. In Dames & Moore, two nearly identical projects have been completed, one prior to CEQ guidelines and the other following CEQ implementation. The "post-CEQ" EIS was conducted with a savings in time, effort, and costs of approximately 30 percent. In other studies, however, we have found that the CEQ guidelines have not been effectively utilized because agencies were not always willing to assume the risks of their own best judgments. As a result issues were not adequately screened nor effort reduced sufficiently to allow any reduction from the old, more comprehensive EIS's.

Other problems that we have observed in the EIS process include:

- Inability of consultants to meet projected deadlines because of delays in processing through federal agencies. Especially costly when staff resources have been brought "on board" for a study and have to be kept busy while draft copies are out for review.
- Still accumulate same quantities of data under CEQ regulations as with old EIS. Should try to get away from some of the data gathering for minor issues.
- Need better interagency cooperation and coordination.
- Problems with different agencies using their own qualitative systems to evaluate important issues, e.g., wetlands, resulting in different opinions as to when and what mitigation is required to make a selected alternative acceptable.

During the conference, consultants were in unison in stating that objectivity was important in their evaluations and that professionalism demanded consistency in their studies. There were several questions raised about the value of scoping meetings ("real issues do not surface during these meetings"), timing of scoping process ("after you have done an EA or before you really know very much about the site?"), and public involvement ("difficult to get public opinion as early as you would like").

Robert P. Stevens, P. E.

WAPORA, Inc.

WAPORA is a consulting firm that has prepared numerous Environmental Impact Statements (EIS), Environmental Assessments (EA), and Environmental Information Documents (EID) for public and private clients. With this broad background and specific experience, we are qualified as a firm to comment on the procedures for developing environmental reports from the consultants viewpoint.

This article is based on comments and discussions during the workshop session at this conference. The purpose of this discussion is to present opinions, hopefully to stimulate thought by agency and consultant personnel. The consultant's panel included scientists and engineers, but these comments reflect an engineer's perspective on the problems in developing the EIS. Specific project experiences are used here for illustrative purposes, where such experience is useful in clarifying a point. However, these are simplified presentations and it must be understood that other factors are involved in creating and defining a course of action in any project.

Scoping

Scoping generally refers to the initial information gathering phase of an EIS and more specifically to the definition of issues relevant to the proposed (or potential) actions and public/private input into the defining of these issues. As such, it is obvious that a realistic and thorough approach toward the development of this information is critical to the preparation of a well-defined project scope and schedule. Ideally, when the issues are defined and the technical approach established, the project will proceed on-schedule to a timely decision. This does not always happen - why?

There are four inherent factors that contribute to project scoping that later prove to be inadequate.

1. Understanding the background situation.

The consultant should be selected for the technical ability to analyze a situation and determine project impacts. In this context, "technical ability" includes competence in the physical sciences, ability to interact with the public, experience with similar projects, and the ability to be unbiased in analyses. It is this last criterion that conflicts with the requirement in scoping to understand the background situation. The resolution of this conflict is critical in performing the scoping process and relies very heavily on the agency and its understanding of the background situation. The agency must recognize this as a primary responsibility during the scoping process.

2. Special interest groups.

Interest in public projects may vary considerably, but when an EIS is required, there is certain to be considerable private interest. However, organized support or protest normally has a much greater impact on defining a project scope than any individual citizen. This is proper, but the key is in the understanding of the segment that the group represents. For example, during the development of wastewater treatment EIS's (USEPA 201 Construction Grants program), a common project objective is to meet future growth requirements. Developers have considerable financial interest in this, and they will be persistent in the presentation of their viewpoint throughout the project. The opposite also may be true as no-growth advocates organize to oppose expansion of public services. The responsibility of recognizing special interest groups and evaluating input from these areas must be shared by the agency and the consultant. This is a good instance of where the unbiased consultant can be employed effectively.

3. Real versus apparent issues.

Apparent issues refer to the stated reason that a project may be supported or opposed (or questioned) by a specific individual or group. The real issue refers to the concerns that prompted the interest by the individual or group in the project and therefore the EIS. These are not necessarily the same. This is a prime source of problems during the review of the EIS results because the real issue may not arise until the technical evaluations are completed and published. Reducing apparent issues to real issues must be done during scoping, but this is not easy. The consultant is responsible to meet with the public and based on experience in similar situations, identify the real issues. This remains an art, so the most common technique has been to expand the EIS scope to address all of the issues common to similar studies.

4. Evolving issues.

The EIS process typically has required a considerable time to complete, so a very real problem is that initial issues evolve to other areas during the evaluations. As an example, an EIS for a small community's wastewater treatment plant begins with water quality as the most important issue. The public dissatisfaction with previous sewer work in the area then becomes the real issue, then the issue becomes dissatisfaction with public services and taxes, and then the interest becomes a controversy between growth and no-growth advocates. These are all interrelated, which is why the initial scoping requires an experienced agency/consultant team.

On the basis of these limitations with the scoping process, the consultant and the agency must be realistic as the project scope is defined. It is the consultant's responsibility to identify to the agency, issues that may arise during the project, as determined by experience. The agency has a similar responsibility to the consultant.

Timeliness

The planning for any project requires that assumptions be made concerning the level-of-effort required and progress of work tasks. The schedule obviously is important in defining both items. However, the EIS process is not intended to adhere to a rigid time schedule. One primary objective of the EIS is the full-disclosure of information with the subsequent interaction of the public in the decision making process. The public will not become involved until a decision is pending - this is perfectly natural because we all must establish priorities for the use of our time. However, the resulting effect is that major questions arise relatively late in the EIS process, which tends to delay completion of analyses.

There are several reasons for project delays, including:

- Inadequate understanding of the project complexity. This rarely is the case, as more experience is acquired with the EIS process.

- Evolving issues. The initial emphases and focus of the EIS may change several times during the development.

- Inflexible consultant/agency response to project changes. This may include the consultant seeking to meet the initial project commitments relative to schedule and cost, with a resultant project approach that seeks to limit the areas of coverage rather than address issues that are relevant. This also may be true of the agency, where there is the desire to complete the decision-making process.

- Changing regulations. This is a fact of life that the consultant and agency must be prepared to accept as inevitable.

- Competing projects. This is another fact of life. The consultant can commit project personnel initially, but the first delay requires the reassignment of personnel to ensure that adequate revenues are maintained to stay in business. When the project is due to be re-started, the original personnel may be unavailable, so there may be the necessity to delay key tasks until the project team again becomes available. The problem of competing projects also applies to the agency, where the project monitor may have numerous "critical" projects in progress, requiring the establishment of a realistic priority system.

- Deliberate delaying tactics. Special interest groups or others can request special studies that are time-consuming, thereby delaying the project completion and the decision.

- Legitimate public concerns. This is probably the most common reason for project delays. As the public learns more about a specific project, questions are asked that do not have trivial responses. Therefore, time and effort is required to develop a response that thoughtfully addresses the topic.

To reiterate the initial statement in this discussion, the EIS process is not intended to adhere strictly to a time-schedule, but is intended to provide a careful analysis of the project. Therefore, it is inevitable that there will be project delays. The agency and consultant are responsible to work together to minimize these unavoidable delays. However, they cannot allow the adherence to an arbitrary schedule to become the criterion for a successful EIS project.

Conclusions

There were two major conclusions that the author discerned on the basis of panel and audience discussions:

1. Scoping is the most critical aspect of the EIS process, the most difficult aspect of the process, and probably the source of most problems with these projects.

2. The timely completion of the EIS (i.e, completing the Draft EIS, reviews, and Final EIS According to the "textbook" schedule) runs counter to the intent of the process, and it probably cannot occur if the EIS satisfies "full-disclosure" requirements.

Another conclusion that hopefully was established within agency personnel was that the consultant does not have any financial incentive in prolonging the duration of these projects. In fact, the timely completion of any project represents the best possible business position for the consultant.

Recommendations to improve the process are as follows:

WRITTEN COMMENTS NOT SUBMITTED BY:

Claude Terry, Claude Terry & Associates

REMARKS BY SHEPPARD N. MOORE, CHIEF, EIS REVIEW SECTION, TO THE ENVIRONMENTAL IMPACT STATEMENT CONFERENCE
JUNE 18, 1980

According to the registration cards, we have approximately 20 Federal agencies, 20 State and local government agencies, as well as consulting firms, private industries. colleges and universities, and private citizens here. Not only is every state in our eight-state region represented, but eight other states and Washington, D. C., as well.

We solicit your input into planning the conference for next year. Please write me or pick up the phone and call me when you think of a matter that you would like to see discussed. It appears that the number of EIS's that we will review this year will be around 150, considerably less than past years. The quality of the statements is continually improving; a fact that I believe is directly impacted by these conferences.

I want to urge that we at EPA be invited to participate in site visits and scoping meetings on any project that you feel will require an EIS. It is our desire to assist you in planning your projects in an environmentally sound manner.

Thank you for your attendance and participation.

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DEPARTMENT OF AGRICULTURE

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Environmental and Technical Staff
Farmers Home Administration
Department of Agriculture
Room 6309-S
Washington, D. C. 20250
447-3394

Forest Service

Environmental Coordinator
Forest Service
Room 3210-S
Department of Agriculture
Washington, D. C. 20250
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Rural Electrification Administration

Environmental and Energy Requirements Division
Rural Electrification Administration
Room 3860-S
Department of Agriculture
Washington, D. C. 20250
447-5755

Soil Conservation Service

Environmental Services Division
Soil Conservation Service
Room 6105-S
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447-3839

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National Oceanic and Atmospheric Administration

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National Oceanic and Atmospheric Administration
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National Park Service

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Bureau of Indian Affairs

Division of Trust Facilitation
Office of Trust Responsibilities
Department of the Interior
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Water and Power Resources Service

Office of Environmental Affairs
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Fish and Wildlife Service

Office of Environmental Coordination
U.S. Fish and Wildlife Service
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Heritage Recreation and Conservation Service

Division of Environmental Compliance and Review
Heritage Recreation and Conservation Service
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Office of Facilities Development and Operations
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1666 Connecticut Avenue, N.W.
Washington, D. C. 20235
673-7861

Central Intelligence Agency

Director of Logistics
Central Intelligence Agency
Washington, D. C. 20505
351-8200

Civil Aeronautics Board

Office of the General Counsel
Civil Aeronautics Board
Washington, D. C. 20428
673-5442

Community Services Administration

Office of Public Affairs
Community Services Administration
1200 19th Street, N. W.
Washington, D. C. 20506
254-5150

Consumer Product Safety Commission

Office of the Executive Director
Consumer Product Safety Commission
Washington, D. C. 20207
492-6550

Environmental Protection Agency

Director, Office of Environmental Review
Environmental Protection Agency
401 M Street, S. W.
Washington, D. C. 20460
755-0777

Export-Import Bank

Office of General Counsel
Export-Import Bank
811 Vermont Avenue, N.W.
Room 951
Washington, D. C. 20571
566-8334

Farm Credit Administration

Governor's Office
Farm Credit Administration
Washington, D. C. 20578
755-2130

Federal Communications Commission

Office of General Counsel
Federal Communications Commission
Washington, D. C. 20554
632-6990

Federal Deposit Insurance Corporation

Office of the Comptroller
Federal Deposit Insurance Corporation
550 17th Street, N.W.
Washington, D. C. 20429
389-4481

Federal Emergency Management Agency

Office of General Counsel
Federal Emergency Management Agency
1725 Eye Street, N.W.
Washington, D. C. 20472
634-1990

Federal Home Loan Bank Board

Office of General Counsel
Federal Home Loan Bank Board
1700 G Street, N.W.
Washington, D. C. 20552
377-6404

Federal Maritime Commission

Office of Environmental Analysis
Federal Maritime Commission
1100 L Street, N.W.
Washington, D. C. 20573
523-5835

Federal Reserve System

Secretary of the Board of Governors of the
  Federal Reserve
20th and Constitution Avenue
Washington, D. C. 20551
452-3252

Federal Trade Commission

Office of General Counsel
Federal Trade Commission
6th and Pennsylvania Avenue, N. W.
Washington, D. C. 20580
523-1928

General Services Administration

Office of the General Counsel
Public Buildings Division
General Services Administration
Washington, D. C. 20405
566-0500

International Communication Agency

Domestic Support Division
Property Management and Emergency Preparedness Staff
International Communication Agency
1717 H Street, N.W.
Washington, D. C. 20547
632-6745

Interstate Commerce Commission

Energy and Environment Branch
Interstate Commerce Commission
12th and Constitution Avenue, N. W.
Washington, D. C. 20425
275-7916

Marine Mammal Commission

Office of General Counsel
Marine Mammal Commission
Room 307
1625 I Street, N.W.
Washington, D. C. 20006
653-6237

National Aeronautics and Space Administration

Management Support Office (External Relations)
Code LB-4
National Aeronautics and Space Administration
Washington, D. C. 20546
755-8383

National Capital Planning Commission

Environment/Energy Branch
National Capital Planning Commission
1325 G Street, N.W.
Washington, D. C. 20576
724-0200

National Credit Union Administration

Office of the General Counsel
National Credit Union Administration
1776 G Street, N.W.
Washington, D. C. 20456
357-1030

Nuclear Regulatory Commission

Division of Site Safety and Environmental Analysis
Nuclear Regulatory Commission
Washington, D. C. 20555
492-8016

Overseas Private Investment Corporation

Office of Development
Overseas Private Investment Corporation
1129 20th Street, N.W.
Washington, D. C. 20547
632-1796

Pennsylvania Avenue Development Corporation

Office of General Counsel
Pennsylvania Avenue Development Corporation
425 13th Street, N. W., Suite 1248
Washington, D. C. 20004
566-0602

Postal Service

Director, Office of Program Planning
Postal Service
Room 8915, Postal Service Headquarters
475 L'Enfant Plaza West, S.W.
Washington, D. C. 20260
245-4304

Securities and Exchange Commission

Office of the General Counsel
Securities and Exchange Commission
500 North Capitol Street
Washington, D. C. 20549
272-2350

Delaware River Basin Commission

Office of the Secretary
Delaware River Basin Commission
Post Office Box 7360
West Trenton, New Jersey 08628
(609) 883-9500